Alberta Conservation Association

Annual Report 2012/13

Alberta Conservation Association

Conserving Alberta's Wild Side

Our Vision

An Alberta with an abundance and diversity of wildlife, fish and their habitats; where future generations continue to use, enjoy and value our rich outdoor heritage.

Our Mission

ACA conserves, protects and enhances fish and wildlife populations and their habitats for Albertans to enjoy, value and use.

It's All in the Numbers 2012/13 Highlights:

- $11,080,742 received from **levy revenue** on hunting and fishing licenses
- $5.5 million received in non-levy revenue from donations and corporate partners
- 33% of our **total revenue** came from non-levy sources
- **116% of levy value** collected put directly into our fish and wildlife resources
- 4,000 acres of **land conserved**
- 245,000 trees and shrubs planted
- 480 acres of **native grassland restored**
- 16 waterbodies aerated to increase fish survival
- 61 waterbodies **stocked** with rainbow trout
- 15 riparian projects completed on **36 km of stream**
- 30 habitat enhancement projects completed with MUTISAR
- 17 **big game surveys** completed
- 88,000 unique visitors came to our website

Thank you for your support!

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Annual Report 2012/13

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ac	acre
cm	centimetre
fish/h	fish caught per hour
fish/km	fish caught per kilometre
fish/100 m^2 of net/24 h	fish captured per 100 m^2 of net per 24 hours
h	hour
ha	hectare
h/ha	hours per hectare
km	kilometre
m	metre
m^2	square metres
mg/L	milligrams per litre
mm	millimetre

Cover Photo: ACA, Jon Van Dijk
Big Game Surveys (p. 17)

Alberta Conservation Association

Conserving Alberta's Wild Side

Member Groups

Alberta Fish & Game Association

Alberta Hunter Education Instructors' Association

Alberta Professional Outfitters Society

Alberta Trappers' Association

Nature Alberta

Pheasants Forever, Alberta Council

Treaty 8 First Nations of Alberta

Trout Unlimited Canada

Wild Sheep Foundation Alberta

Board of Directors

Executive

Pat Long, Chairman: Wild Sheep Foundation Alberta

Ken Ambrock, Vice Chairman: Public At Large, Northern Alberta Board Liaison

Colin Gosselin, Secretary: Public At Large, Northeast Region

Sandra Foss, Treasurer: Nature Alberta

Tom Bateman, Past Chair: Public At Large, Southern Alberta Board Liaison

Directors

Bill Abercrombie - Alberta Trappers' Association

Vince Aiello - Pheasants Forever, Alberta Council

Brian Bildson - Public At Large, Business Representative

Dr. Mark Boyce - ACA/University of Alberta Chair in Fisheries and Wildlife

Gordon Burton - Alberta Professional Outfitters Society

Randy Collins - Alberta Fish & Game Association

Robert Gruszecki - Alberta Hunter Education Instructors' Association

Adam Norris - Public At Large, Northwest Region

John Pattison - Public At Large, Central Region

Travis Ripley - Minister's Representative, Alberta Environment and Sustainable Resource Development

Jeff Surtees - Trout Unlimited Canada

Jaarno Van der Wielen - Public At Large, Southern Region

Vacant - Treaty 8 First Nations of Alberta

About Us

Since our inception as a non-profit in 1997, ACA has directed hundreds of millions of dollars towards thousands of conservation efforts across Alberta, from studies on the largest species to the securement of vast tracts of precious habitat.

Every levy dollar from fishing and hunting license sales and every partnership contribute to the conservation of Alberta's natural heritage. Together, we are securing the future of fish and wildlife and the habitats they call home while providing Albertans with access to a myriad of sustainable outdoor recreational activities.

We love the work we do. It's a reward to call Alberta's big backyard our "office" and a privilege to work on behalf of Alberta's hunters, anglers and other conservationists.

Delegated Roles and Responsibilities

ACA holds special status as a delegated administrative organization (DAO), which means that we deliver responsibilities as outlined in the *Wildlife Act* and defined in a Memorandum of Understanding (MOU) with the Ministry of Alberta Environment and Sustainable Resource Development (ESRD).

In our role as a DAO, results from our population studies, surveys and assessments feed directly into ESRD management plans and form the basis for fishing and hunting regulation changes and evaluations of new management strategies.

Clearwater River Core Area Bull Trout Status (p. 25)

photo: ACA, Chad Judd

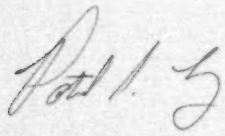
photo: ACA, Mike Jokinen

From the Chairman

In 1997, as a northern bureaucrat with Alberta Fish and Wildlife, I played a minor role in the inception of Alberta Conservation Association as it moved from concept to a non-profit organization. During that time, I watched as the organization met and overcame the challenges associated with being the "new kid on the block." I observed as Alberta Conservation Association moved from those first formative years to the successful and dynamic organization it is today. Somewhere along the way, I became involved as an elected public-at-large director, then as a member group director representing Wild Sheep Foundation Alberta, and more recently as Chairman of the Board.

My involvement has been, and continues to be, inspired by the many accomplishments—resulting from the energy, dedication and innovation of the staff—of this organization. Overall, 300 plus partnerships and working relationships have been formed with landowners and other conservation organizations. That greatly factors into the success of their fish, land and wildlife projects, all of which result in enhanced opportunities to conserve and secure habitat. Reaching out to the public and sharing responsibilities with Albertans in maintaining our outdoor heritage, combined with the implementation of community-based initiatives, have increased opportunities for all to enjoy Alberta's natural resources. There is also a lot to be said for the diversity of backgrounds and experience brought to the table by 18 directors; that broad range of knowledge is so effective in providing overall direction to the organization.

As you read this annual report, you will become aware of, and gain more appreciation for, Alberta Conservation Association's accomplishments during this past year and where it is headed. I am a third generation Albertan who needs to be comfortable in knowing that today's fish and wildlife resources will be here tomorrow for my family and all Albertans. Alberta Conservation Association is doing that, and that is why I am proud to be associated with this great group of people.



Pat Long, Chairman of the Board

Todd Zimmrerling aiding ESRD and Parks Canada in the collection and marking of bull trout in Jacques Lake, Jasper National Park

photo: Linda Zimmerling

President and CEO's Message

As we are putting the final touches on this annual report, the floods of 2013 are subsiding. Mother Nature's destruction is well beyond what anyone could have imagined—lives lost, property destroyed and communities changed forever. My heart goes out to the people directly impacted by the floods, as I cannot imagine having my home washed away in mere hours or losing a loved one to a raging river.

What amazed me most was how much the true Alberta Spirit shone through. As the floodwaters receded and the extent of the devastation became obvious, it was clear that the people of southern Alberta had been hit hard, but you never saw them give up. Of the hundreds of interviews I heard, not once did anyone say, "I won't be back" or "Mother Nature has beat us." Instead, what I heard were story after story of communities banding together, strangers helping strangers, and a clearly articulated feeling that this may be bad, but if we work together we can, and will, overcome this tragedy. The Alberta Spirit is a spirit that represents community, an attitude of "never say die," an understanding that together we are stronger, and the knowledge that if we all work together we can overcome anything.

In thinking about what southern Albertans are accomplishing with cleanup and rebuilding, I realized that the Alberta Spirit is what has made Alberta Conservation Association successful again this year. There is no lack of conservation-related issues facing Alberta, but by pulling together, partnering more than ever, involving more community groups, engaging corporate partners, and working together, we can achieve much more than we can alone.

In 2012/13, we successfully raised $5.5 million in non-levy funding. This included $3 million of conservation lands. Alberta Fish & Game Association (AFGA), Pheasants Forever (PF), Nature Conservancy of Canada (NCC), Shell Canada and Suncor Energy Foundation were all integral to us securing over 4,096 acres (1,657 ha) of land throughout the province.

We worked directly with Alberta Hunter Education Instructors' Association (AHEIA), AFGA, PF, Upland Birds Alberta, Taber Chamber of Commerce, local landowners and various corporate sponsors to run the second year of the Taber Pheasant Festival. Despite an early winter storm, including heavy snowfall and howling winds, the festival was very successful with over 500 participants and a large number of people asking for the event to be expanded next year. In addition, a wide range of other projects were undertaken in partnership with AFGA, AHEIA, Alberta Trappers' Association, Hunting for Tomorrow, Nature Alberta, PF, Trout Unlimited Canada and Alberta Environment and Sustainable Resource Development.

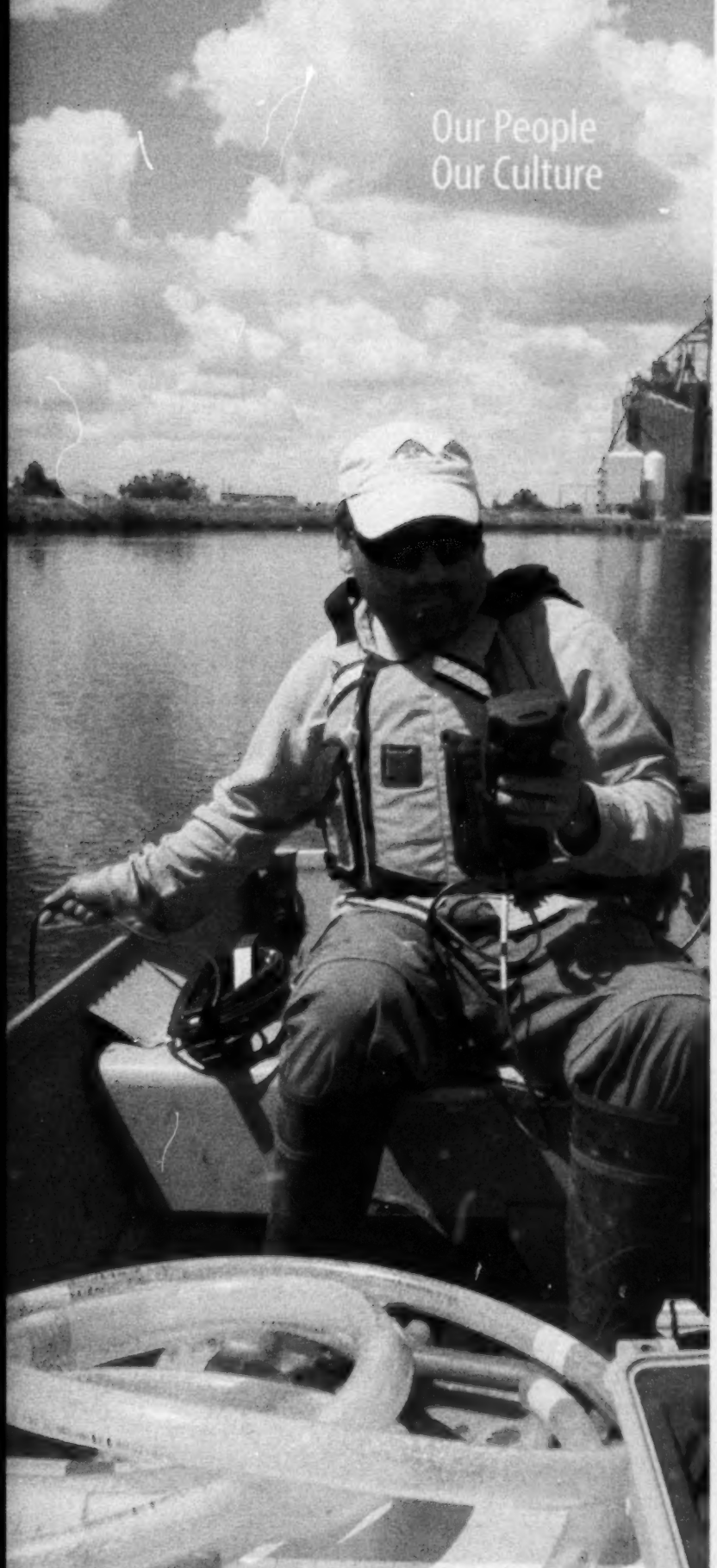
Perhaps one of the most exciting happenings from 2012/13 was an increase in the number of hunters and anglers purchasing licenses in the province. We saw a 5% increase in the number of licensed hunters (approximately 121,000) and a 2% increase in licensed anglers (approximately 260,000). These results continue a five-year increasing trend that runs counter to most other jurisdictions in North America. I consider this increase as an accomplishment of Alberta Conservation Association and our member groups. Our strong partnerships are providing training and education, increasing opportunities for first-time hunters and anglers, promoting ethical hunting and angling, and increasing the overall awareness of hunting and angling. Of course, Alberta Conservation Association and our member groups are not just about hunting and angling. I believe that by increasing participation in hunting and angling, we are also increasing the acceptance of hunting and angling by the general public. Through various projects and activities, we are showing that hunters and anglers are in fact true conservationists, concerned as much about species at risk as we are about species we can harvest.

As you read through this annual report, you will get a sense of the large number of projects completed this year and the partnerships involved. I thank the staff and volunteers from our conservation partners who have aided Alberta Conservation Association with our projects. I also thank the dedicated Alberta Conservation Association staff, who continue to look for every opportunity to work with other organizations. Working hard together to overcome adversity is part of the Alberta Spirit, and that is the spirit that will drive the success of Alberta Conservation Association and our conservation partners into the future.

Sincerely,

Todd Zimmerling

President and CEO
Alberta Conservation Association



Health and Safety

Workplace safety is a serious matter, particularly when many of our staff are on the road or in remote field locations. Our Health and Safety program has been specifically built to provide all staff with the best possible training, policies and procedures ensuring their safety and well-being no matter where the job takes them. We require everyone who works with us in any capacity (be it employees, contractors, volunteers, visitors, etc.) to comply with ACA's Health and Safety policies and procedures for the protection of themselves and others.

2012/13 Overview

- Ensured all aspects of ACA's Health and Safety program met or exceeded the standards established within the Certificate of Recognition (COR) program
  - The program was reviewed, ensuring policies and procedures were consistently adhered to and appropriate records maintained.
- Reviewed and updated the Health and Safety Manual throughout the year by incorporating insight, comments and suggestions from ACA staff
- Realized an overall reduction in the number of workplace incidents
  - No specific type of workplace hazard was identified as particularly significant or common among ACA work environments. This can be attributed to increased awareness and appropriate proactive or preventative actions taken by ACA staff. All incidents at ACA are reviewed to reduce or eliminate potential hazards.

Troy Furukawa, ACA - Trout Stocking Evaluation project (p. 29)

photo: ACA, Bill Patterson

Human Resources

ACA accomplishes a lot of work over vast territory every year, thanks in large part to our 73 permanent staff and 15 temporary seasonal staff. Human Resources not only ensures the best people are recruited for the job, but we are also integral to keeping our most valuable resource—our staff—trained, safe, educated and satisfied with the organization.

Year after year, it is our hardworking, dedicated staff both in the office and in the field who truly make it possible to "Conserve Alberta's Wild Side." Congratulations and thanks are extended to the following individuals who have achieved significant Years of Service milestones this year.

5 Years of Service

Deborah Dueck, Executive Administrative Assistant
Colin Eyo, Multimedia Co-ordinator, Communications
Mike Kaiser, IT Manager
Ken Kranrod, Vice President
Natalia McPhee, HR Manager
Len Peleshok, RAP Co-ordinator
Shevenell Webb, Intermediate Biologist
Todd Zimmerling, President and CEO

10 Years of Service

Jasmin Dale, Executive Administrative Assistant
Brad Downey, Intermediate Biologist
Kelly Hudson, Finance Manager
Tyler Johns, Intermediate Biologist
Michael Jokinen, Intermediate Biologist
Dan Sturgess, Intermediate Biologist
Brad Taylor, Senior Biologist
Sue Peters, Intermediate Biologist

15 Years of Service

Trevor Council, Regional Manager
Darren Dorge, Program Manager
Troy Furukawa, Intermediate Biologist
Kevin Gardiner, Regional Manager
Velma Hudson, Senior Technician
Paul Hvenegaard, Regional Manager
Dave Jackson, Senior Technician
Ed Kolodychuk, Senior Technician
Randy Lee, Land Management Specialist
Joanne Melzer, Administrative Assistant
Jim Potter, Intermediate Technician
Lori Rhode, Administrative Assistant
Diana Rung, Intermediate Biologist
Ken Wright, Senior Technician

2012/13 Overview

Employee Survey

- 89.2% of employees agree they are satisfied with ACA as a place to work—a slight decrease from the previous year.
- 89.6% of employees are satisfied with having a good work-life balance.
- 78.7% are satisfied with ACA's benefit plan. We switched benefit brokers and continue to look for a cost-effective plan that benefits all employees without compromising service.

Employee Retention

- Staff turnover remained at 5.1%. We continue to increase job satisfaction by providing employees with the opportunity to improve their skills through professional development and mentoring. We also invest in promoting talent from within the organization, offering new opportunities for growth and retention.

Environmental Responsibility Policy

- Completed and promoted the first ACA Environmental Responsibility Policy. The policy was created by staff for staff and includes yearly monitoring and evaluation objectives.

Career Fairs

- Career fairs provided an excellent opportunity for ACA to educate new graduates about the organization and entice them to consider future seasonal and permanent job opportunities.

Information Technology

As our organization continues to grow, the management of, and ease of access to, systems and databases becomes increasingly important. Information Technology (IT) is committed to finding solutions, increasing operational efficiencies and saving resources in support of this growth.

2012/13 Overview

- Realized a software savings of $28,000 with the migration to Windows 7 and procurement of Office 365
- Aligned ACA's GIS software with the Government of Alberta's electronic map file standards
- Reduced the number of company servers by using Sharepoint Online to create our new intranet site, resulting in cost savings and freeing up IT staff time for other projects
- Introduced a new cellular plan that allows staff to use newer cellular technology while reducing costs

Business Development

We rely heavily upon sponsorships from the business community to achieve our annual operating goals and leverage funding for significant milestones in conservation work and habitat securement. We're pleased to be a desired and welcomed partner to many Alberta corporations that support our various projects and align themselves with our work and values.

ACA's Corporate Partners in Conservation (CPIC) Program goes beyond offset programs by providing unique opportunities for Alberta businesses to play a vital role in conserving Alberta's natural heritage. Our CPIC participants enjoy the ability to promote their affiliation with us through their own communications and also benefit from ACA's promotion of these partnerships through our existing communications initiatives.

Business Development is also responsible for generating revenue through advertising sales to offset costs associated with Communications activities on television, radio and our in-house publications, *Conservation Magazine* and the *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*.

2012/13 Overview

- 8 companies signed on as new Corporate Partners in Conservation:
  - Access Pipeline
  - Agrium
  - Aquality Environmental
  - Aux Sable
  - City of Fort Saskatchewan
  - Canadian National Sportsmen's Shows
  - Complete Crossings
  - Dow AgroSciences
- Secured more than $100,000 in advertising sales in the 2012 issues of *Conservation Magazine* and the 2012/13 edition of *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*.

East Oakley Lake Conservation Site
Partners: ACA, ESRD, Suncor Energy Foundation
photo: ACA, Jenny Straub
Discover Alberta's Wild Side
Annual Outdoor Adventure Guide
Map Grid D3 150

Conservation Programs

Communications

The past year has been about continuing to grow our digital reach to raise more awareness about ACA and the work we do. Focusing on social media, we grew our Facebook, Twitter and YouTube followers by 103%, 104% and 202%, respectively. Trail camera footage of a lynx and vole proved particularly engaging, along with footage of a cougar visiting a rub tree and the ever elusive and irresistible wolverine. Our social media success also includes the Shell FuellingChange project. We were one of two Canadian organizations to receive $100,000 after receiving the most votes in their Fall/Winter 2012 cycle. Promotion on Facebook, Twitter, and especially in our e-newsletter played a large part in that success.

Our e-newsletter has grown by 25% to 66,898 subscribers, mostly from WIN card renewals. We sent out a total of 21 newsletters. Our open and click-through rates are well above the industry average, telling us that readers value the information we include and the work ACA does.

We expanded our web presence by giving Report A Poacher its own corner of the web as part of the MY MEAT'S LEGAL campaign, launched on September 1, 2012. MY MEAT'S LEGAL has landed us news coverage in places like the *Field and Stream* blog, the *Outdoor Canada* magazine's blog, CTV News, and other major news outlets in Alberta. The cheeky campaign, started to create awareness about the problem of poaching in Alberta, has definitely gotten people talking. It has also raised funds for the Report A Poacher program through t-shirt and hoodie sales.

Other significant website changes include a new Alberta Volunteer Amphibian Monitoring Program (AVAMP) section where volunteers can sign up and submit their amphibian observations online, as well as a custom Taber Pheasant Festival registration system that we implemented for the first time. It worked flawlessly, and thanks to the overwhelming interest and our successful promotion of the new registration system, all hunting times were taken within 30 minutes. The development of this registration system also makes it feasible to register participants for future ACA events with relatively minor adjustments. We continued the peregrine camera from last year and found that it increased our web traffic by about 25%, creating a great opportunity to emphasize the importance of conservation.

In addition to these changes, the *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide* now has its own URL (albertadiscoverguide.com), making it easier than ever for people to find the Guide information in one well-organized, comprehensive place on the web. The site is also fully mobile friendly so that users who do not have an iPhone can access the same information as our *Alberta Outdoor Adventure Guide* app users, of whom there are now 25,767, which is a 59% increase from last year. We have been promoting the app whenever we can, and we know that it is used daily by multiple users, who also find out the latest things ACA is doing, like stocking fish or publishing *Conservation Magazine* or attending trade shows, when they open their app.

Speaking of *Conservation Magazine*, it continues to be our flagship publication. We added a new four-page kids pull-out section called "Wild Tracks," and we have distributed 40,000 printed copies and 59,000 digital versions of the magazine. One writer from the *Cochrane Times* said, "The ACA has a just brilliant twice-yearly magazine (print or online) - 'Conservation' - whose contributors and particularly photographers just have to be fanatics...to get the world-class and often award-winning wildlife angles they do." We also published 80,000 copies of the print version of *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*, which is a real workhorse publication. It stands out as a tangible summary of the work our Land Management team and our partners do to conserve habitat in Alberta.

Media coverage has included newspaper and online coverage of everything from the Shell True North Forest Conservation Site and our tree planting work to our leopard frog work, our partnership with the Halls of the Timber Ridge Conservation Site, our pronghorn work, the 2013 Taber Pheasant Festival, and the Hay-Zama wetland monitoring project in publications including the *Calgary Herald*, *Edmonton Journal* and smaller newspapers in Alberta, as well as on websites covering news in Alberta.

Other internal and general housekeeping projects included promoting and designing materials for the 2012 Taber Pheasant Festival; designing posters, signage, hay tender and thin ice ads, banners, factsheets and other tools; and providing assistance and advice to help program areas achieve their annual goals. We have also been busy reviewing and organizing Karvonen Films. *Conservation Magazine* will be getting its own website and a new look, scheduled to launch in 2013.

2012/13 Overview

Publications

- 2012/2013 Annual Report produced
- 2012/2013 Annual Operating Plan produced
- *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*
  - Fifth edition published and 80,000 copies printed and distributed
- *Alberta Outdoor Adventure Guide* app
  - 25,767 users downloaded the free app from iTunes, up 59% from last year
- *Conservation Magazine*
  - Published biannually and distributed

to 40,000 hard copy subscribers and approximately 50,000 online readers

Web

- 88,181 unique visitors to ab-conservation.com, up 21% from last year
- 8,814 unique visitors to reportapoacher.com, launched in September 2012

Social Media

- 903 responses to our "ACA Proposed Levy Increase Feedback" online survey
- 66,898 e-newsletter subscribers (Wild Mail), an increase of 25% from 2011
- 1,887 Facebook likes (a 133% increase)
- 1,209 Twitter followers (a 104% increase)
- 28,498 YouTube viewers (a 202% increase) – YouTube viewers watched an estimated 27,857 minutes of video on our channel. That is approximately 19 days and 8 hours.

Let's Go Outdoors Partnership:

Radio

- 56,160 total occasions on radio produced in partnership with Let's Go Outdoors, combined between radio feature stories and one-minute commercials
- 1,600 additional occasions recorded with opening and closing billboards on the weekend radio show
- 23,400 impressions at the beginning and end of one-minute radio columns, each of which aired a minimum of three times per day, five days a week

Television

- Let's Go Outdoors TV Season 2 aired on CTV2 with an average of 6,000 – 9,000 viewers per episode (13 episodes in the season). The show was also carried by Discovery World, which aired the season to a potential audience of 19 million viewers. Let's Go Outdoors was the anchor program on Discovery World's Wednesday "Made in Canada" evenings, an outdoor programming segment. The show aired nationally at 6 p.m. eastern time.
- The second season included 44 stories specifically about ACA or our member groups. Each story was featured in Alberta and nationally for a total of 1,144 occasions.

Erin VanderMarel, ACA - Owl River Riparian Conservation project (p. 34)

photo: ACA, Stefanie Fenson

Wildlife Program

Wildlife projects are delivered within four areas: *1) Ungulates, 2) Upland Game Birds, 3) Waterfowl, and 4) Species at Risk.*

Keeping it "WHILD"

To conserve wilderness areas, it is important to identify where these areas occur and put this information into a structure that is easy to access and understand. As part of the WHILDZ (Wildlife Habitat Initiative in Low Disturbance Zones) project, we're creating a mapping tool that identifies low-disturbance wilderness areas and key wildlife in these wild spaces. This tool will provide critical information that can be used by stakeholders, industry and government in land use planning discussions and negotiations. In 2012/13, we continued our work to document wildlife use of mineral licks—localized, resource-rich habitats that provide essential nutrients to ungulates and some carnivores during periods of dietary deficiency or increased energy demand. We also completed draft recommendations for the spatial and temporal protection of mineral licks to help mitigate disturbances at these sites.

Learning more about the largest terrestrial Mustelidae

As another component of the WHILDZ project, we continued to partner with the Alberta Trappers' Association to compile information on wolverines that their members collect every trapping season. With its scientific name *Gulo gulo*, which means "glutton," it is not surprising that this trait was used to learn more about this species. Dual trail cameras and hair snag devices were installed at baited stations to collect data such as evidence of visitation (rates and times) and DNA samples. This information will aid our understanding of movements of wolverines within Alberta and outside our borders.

Fleet of foot

Pronghorn are highly specialized prairie dwellers that thrive in open spaces. The increasing prominence of cattle ranching in southern Alberta has brought a serious physical barrier to pronghorn: they have not developed the behaviour to jump over obstacles like fences and are often seen skirting along fence lines seeking a place to duck underneath. Besides impeding pronghorn movement, low-lying fences often scalp hair from their backs as they stoop under the bottom wire. As part of the Where the Pronghorn Cross project, we continued our work with Alberta Fish & Game volunteers to modify fences in key areas along pronghorn migration routes using goat bars to raise the bottom fence line wire. At locations where we set up cameras to record travel across modified fence lines, we documented only one event of a domestic cattle calf going under a goat bar. Preliminary results suggest that pronghorn appear to be using existing "traditional" sites for crossing fences, but this observation needs further evaluation.

Big game surveys

During the 2012/13 survey cycle, the Wildlife Management Branch of ESRD delegated 20 big game surveys to ACA, with a number of surveys identified as condition-dependent, pending adequate snowfall and sufficient funds. Overall, the summer and winter survey seasons were a success, with a total of 17 surveys completed. We conducted at least one survey for moose, white-tailed deer, mule deer, elk, mountain goat and pronghorn. Of note, pronghorn surveys suggest herds may still be recovering from a series of harsh winters and lower kid recruitment. Also of note, total counts of mountain goats were higher than 2011/12 counts on five survey units, comparable on three units, and lower on three units.

Creating habitat

The prairies offer a tapestry of habitat for wildlife when in its pristine native form, but finding suitable habitat can be challenging for species living in areas dominated by cropland. We work with landowners within the Habitat Legacy Partnership project to enhance their land for wildlife while sustaining profitable farming operations. Often we assist landowners with identifying areas that are marginal for production but could greatly benefit ring-necked pheasants and other species. We planted roughly 16,500 shrubs and trees, creating winter habitat for pheasants and other wildlife. At five enhancement sites, we completed point count surveys and recorded 58 different bird species. Ring-necked pheasants were present on four of these sites. We also surveyed 54 km of suitable habitat in southern Alberta and found the average covey size for ring-necked pheasants to be 3.3 birds and for gray partridge to be 10.4 birds.

Partnering with landholders

Much of the land base throughout the Milk River basin is a mix of cattle and farming operations. Our MULTISAR (Multiple Species at Risk) program works with co-operating landowners to benefit multiple species, particularly those that are at risk. Working with project partners, we assist landowners in developing habitat conservation strategies on their lands, targeting specific enhancements that benefit both wildlife and landowners. In 2012/13, we seeded 480 acres back to native grasses, broadcasted 100 pounds of hand-harvested silver sagebrush seed onto native grassland restoration sites, and planted 1,000 silver sagebrush plugs.

Dancing kings of Alberta

Each spring, male sharp-tailed grouse put on their dancing shoes to impress females at sites known as leks. While this showy display is hard to forget for anyone lucky

enough to come across one, it's quite a challenge to find these locations when searching over a broad geographic area. In 2012/13, as part of the Sharp-tailed Grouse Habitat Inventory and Stewardship project, we used a combination of remote listening devices (song-meters) and human observers to understand occupancy rates of historical lek sites in poor, moderate and good habitats. As predicted, we found occupancy rates were highest at lek sites with good nesting cover and lowest at lek sites with poor nesting cover.

2012/13 Overview

- 150 questionnaires completed by trappers involved in the wolverine project; responses suggested that wolverines are highly regarded for both their intrinsic value and recreational opportunities
- 13 individual wolverines, including 4 males, 3 females and 6 unclassified, identified using camera images captured during the previous year's field trials
- 16 mineral licks monitored, surpassing our goal of 10; recorded site characteristics, species use and analyzed roughly 86,500 motion-triggered trail camera images
- Prioritized key areas where fences limit pronghorn movement and shared this information with Alberta Fish & Game Association to guide fence modification work
- 2 landowner advisory workshops hosted; one workshop focused on habitat enhancement projects for upland game birds in southern Alberta and the other on managing predators of game birds
- 1 landowner-focused workshop delivered to discuss sharp-tailed grouse needs and to encourage stewardship
- 30+ enhancements completed as part of the MULTISAR project monitored to determine if they were successful at producing desired outcomes
- A local citizen science group has continued to assist with northern leopard frog monitoring at Beauvais Lake Provincial Park
- 67,000+ people received ACA's monthly e-newsletter; several articles published with a conservation-education focus and encouraged volunteer participation in ACA's Wildlife program

Overall, the success of our Wildlife program activities in 2012/13 involved the support of over 40 partners consisting of provincial and federal governments, industry, NGOs, universities, municipalities, leaseholders, private landowners and other interested groups.

Kris Kendell, ACA - Amphibian Monitoring Using Environmental DNA (eDNA) (p. 17)

photo: ACA, Sue Peters

Big Game Surveys

Big game surveys provide information on population sizes and trends, population demographics, and reproductive output for ungulate species in Alberta. Many stakeholders, such as resource managers and hunters, are interested in these data. Alberta Environment and Sustainable Resource Development uses these data as a source of information to assist with setting hunting quotas and to aid in land use planning. Hunters are often interested in these data because they provide detailed information on how their resource is doing over time, frequently confirming their own observations in the field. In 2012/13, we had a much better year for snowfall in the northern part of the province, but we still struggled with unfavourably warm and dry weather in the south. Despite variable survey conditions, we were able to conduct surveys for multiple ungulate species across Alberta. We completed 17 surveys, which provided 37 separate population estimates. We entered all data into the provincial Fisheries and Wildlife Management Information System database and posted summary information on these surveys on our website, making results available to the hunters and anglers who pay for the majority of costs associated with this project.

Partnerships

Alberta Environment and Sustainable Resource Development

Alberta Northern Leopard Frog Recovery Program

The northern leopard frog has suffered dramatic population declines in many parts of its range in Alberta and is listed as a *Threatened* species in the province. ACA is a member of the Alberta Northern Leopard Frog Recovery Team and is involved in the delivery of strategic actions outlined in the species' recovery plan. Between 2007 and 2010, we attempted to establish northern leopard frogs at 10 sites through egg translocations. We conducted a minimum of two surveys at each site to evaluate the success of these translocations. We surveyed sites during the month of August to maximize detection through potential observation of large aggregations of young frogs around breeding ponds. In 2012/13, we observed northern leopard frogs at four of our 10 reintroduction sites, including evidence of successful breeding at two of our sites. We have found evidence of a self-sustaining population of northern leopard frogs at Beauvais Lake Provincial Park, with three consecutive years of natural recruitment. We also detected northern leopard frog recruitment at Wyndham-Carseland Provincial Park. Success at these and other translocation sites will be evaluated based on continued breeding of adult frogs and recruitment of young.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Tourism, Parks and Recreation, Parks Canada, TD Friends of the Environment Foundation

Alberta Wildlife Status Reports

The Alberta Wildlife Status Report Series provides comprehensive summaries of the status of selected wildlife species in Alberta. Each spring, ACA and Alberta Environment and Sustainable Resource Development (ESRD) prioritize the species that are most in need of a detailed status assessment. Status reports contain information on species distribution, habitat, population, limiting factors and management in Alberta, and provide a basis for the Scientific Subcommittee (of Alberta's Endangered Species Conservation Committee; ESCC) to complete a formal status assessment of that species. The Subcommittee provides the ESCC with the formal status evaluation, and the stakeholder-based ESCC concurs or withholds concurrence of the recommended status, which is then provided to the Minister of ESRD to determine the legal designation. ACA oversees the entire publication process for status reports, including the contracting of experts to write the report, editing drafts, supervising the external review process, completing the final formatting, and publishing the reports online. In 2012/13, we published one status report (prairie rattlesnake update), submitted three reports (hare-footed locoweed, western grebe update, brassy minnow) for review by the ESCC, and initiated one new report (trumpeter swan update). This report series plays a key role in identifying *Endangered* and *Threatened* species that need legal protection to keep them from becoming extinct or extirpated.

Partnerships

Alberta Environment and Sustainable Resource Development

Amphibian Monitoring Using Environmental DNA (eDNA)

We are partnering with the University of Alberta to test a novel approach for detecting the presence of amphibians using environmental DNA (eDNA) that may be naturally suspended in water. We will evaluate this survey technique using two amphibian species (Canadian toad and wood frog), although we predict we will be able to use this technique to identify all 10 amphibian species that occur in Alberta. We will also use this approach to develop a measure of relative abundance of a given species within and among waterbodies. In 2012/13, we collected 208 water samples from 26 confirmed or suspected Canadian toad and wood frog breeding ponds in the Edmonton region. We also collected 15 water samples from an aquarium stocked with Canadian toad tadpoles to act as a control. Water samples will be analyzed for the presence of eDNA by a graduate student from the University of Alberta in 2013/14. We anticipate that trace amounts of amphibian

DNA will be detected in the water samples through the release of cells containing DNA from mucus, feces, urine and sloughed tissue of target species. If successful, this survey approach could change the way amphibian (and possibly fish) surveys are conducted in Alberta and provide an excellent opportunity to engage volunteers in helping to inventory some species that have historically been challenging to survey.

Partnerships

TD Friends of the Environment Foundation, University of Alberta

Habitat Legacy Partnership

Upland game birds are highly valued for their showy colours, breeding displays and long history in the hunting tradition of Alberta. Ring-necked pheasants require a variety of habitats that provide suitable cover for nesting, brood rearing and travel. We work in partnership with Pheasants Forever (Calgary and Chinook chapters), private landowners, municipal districts, irrigation districts and on ACA-managed sites to support enhancement activities for upland habitat. In 2012/13, we hosted two landowner advisory workshops, which were strongly supported by participants interested in developing habitat on their properties and controlling predators of upland game birds. We planted approximately 16,500 shrubs and trees to improve winter habitat, laid fabric mulch to reduce weed competition for approximately 5,000 shrubs, and seeded approximately 20 ac to a grass/fescue/alfalfa seed blend. We recorded 58 different bird species on our enhancement sites, with ring-necked pheasants present on four of five enhancement sites. We found no significant difference in species abundance or biodiversity between enhanced versus control sites. The average covey size for pheasants was 3.3 birds and for gray partridge was 10.4 birds. Hunters could expect an average flush rate of 0.63 flushes for each kilometre walked for both ring-necked pheasant and gray partridge.

Partnerships

Alberta Hunter Education Instructors' Association, Hays Stock Grazing Association, landowners, Municipal District of Taber, Municipal District of Warner, Pheasants Forever – Calgary Chapter and Chinook Chapter, St. Mary River Irrigation District

Hay-Zama Wetland Monitoring

The Hay-Zama Wetland Monitoring program was developed in response to concerns about the potential impact of oil and gas activities on waterfowl within the wetland complex. As a condition of operation within the Hay-Zama complex, Alberta's Energy Resources Conservation Board requires oil and gas companies to monitor staging waterfowl and suspend production of a well if waterfowl numbers exceed the level of 600 individuals within 30 m. To monitor waterfowl numbers, we flew weekly aerial surveys during spring and fall migration periods over all producing oil and gas wells within the complex. Weekly surveys also included an established route over the entire complex to estimate the aggregate number of staging waterfowl observed for each survey period, which was used to identify when the bulk of migration had occurred. We observed peak numbers of waterfowl during the first survey week in spring (May 1) and the fourth survey week in fall (September 27). Waterfowl concentrations did not exceed threshold levels at any well sites during the 2012 migration periods. We also flew a single aerial survey for bald eagle nests within the complex on June 5 and observed six active nests.

Partnerships

Hay-Zama Committee, NuVista Energy Ltd.

MULTISAR

MULTISAR is a multi-species stewardship program for species at risk focusing on the Milk River and associated watersheds. The program is a collaborative effort among landowners, ACA, Alberta Environment and Sustainable Resource Development, and Prairie Conservation Forum. In 2012/13, we completed detailed wildlife and range surveys on 13,000 ac of land and completed three habitat plans. The provincially *Endangered* ferruginous hawk, nationally *Endangered* greater short-horned lizard, and nationally *Threatened* chestnut-collared longspur and Sprague's pipit were a few of the species identified on these lands. We implemented enhancements on eight properties, including reseeding 480 ac back to native grass, planting 1,000 silver sagebrush plugs, and installing a smooth bottom wire on 21 km of fence. Through open communication, we continue to build long-term relationships and increase awareness of species at risk with the landholders who care for wildlife. These relationships help us implement stewardship activities that benefit wildlife and complement the business strategies of individual landholders.

Partnerships

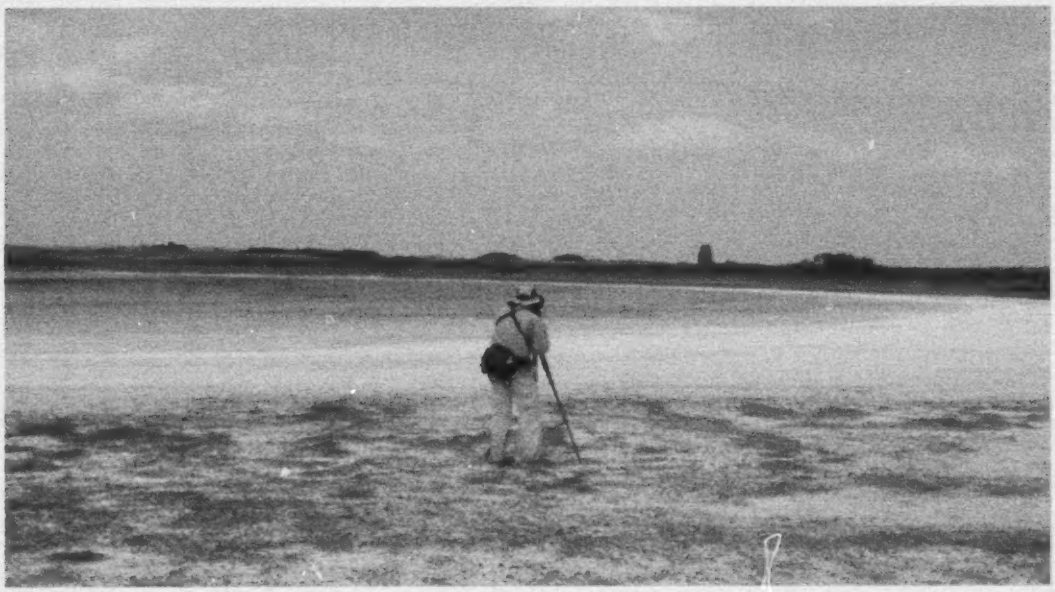
Alberta Environment and Sustainable Resource Development, Canadian Natural Resources Limited, Environment Canada – Environmental Damages Fund, Government of Canada Habitat Stewardship Program for Species at Risk, landholders, Prairie Conservation Forum

Opposite Top to Bottom

MULTISAR, *Endangered* ferruginous hawk (p. 18)
photo: ACA, Sarah Nielsen

Hay-Zama Wetland Monitoring (p. 18)
photo: ACA, Lyle Fullerton

Piping Plover Recovery Program (p. 20)
photo: ACA, Mike Ranger



Piping Plover Recovery Program

The piping plover is a small, black and white, stubby-billed shorebird listed as *Endangered* under Alberta's *Wildlife Act*. Piping plovers rely heavily on gravel-strewn beaches for nesting and rearing broods. We address threats facing piping plover populations through the enhancement of habitat and through education and outreach initiatives. We also conduct annual surveys on core breeding lakes to monitor population numbers and the success of our recovery actions. Our work is done with the support of the Alberta Piping Plover Recovery Team, funding partners and the many landowners throughout east-central and southern Alberta. In 2012/13, we and our partners surveyed 28 waterbodies for piping plovers. We detected 175 adults on 20 lakes, with seven of these lakes having 10 or more adults on site. We surveyed habitat at 28 lakes and contacted over 20 landowners during the piping plover breeding season. We completed wildlife-friendly fencing projects at Chain #4 and McLaren lakes, one fencing repair project at Killarney Lake, one temporary fencing project at Piper Lake, and we replaced non-wildlife-friendly fencing with wildlife-friendly fencing at Handhills Lake. These fencing improvements enhanced over 10 km of shoreline habitat, and 8 km of existing permanent fencing was either repaired or replaced with wildlife-friendly fencing. We also repeated an annual vegetation reduction project through livestock grazing at Little Fish Lake, and we completed year one of a vegetation control project to restore over 4 ha of previously suitable breeding habitat to its former state. Since 2002, this project has enhanced over 53 km of shoreline habitat, with the majority of key piping plover habitat being protected or enhanced through fencing.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Tourism, Parks and Recreation, Department of National Defence, Ducks Unlimited Canada, Government of Canada Habitat Stewardship Program for Species at Risk, landowners, TD Friends of the Environment Foundation

Pronghorn Program Phase III Mapping Fences

Having evolved on the prairies of North America, pronghorn have not developed an instinct to jump vertical obstacles. The proliferation of fencing that followed cattle ranching into Alberta poses a serious barrier to pronghorn movement. Pronghorn may cross under fence lines in some locations, but it slows down their movements making them susceptible to predators and in some cases strips hair off their backs causing lacerations and making them vulnerable to infection and frostbite. We mapped over 67,000 km of fence line in 630 townships in southeastern Alberta to identify potential problem areas. We set up 42 cameras on Canadian Forces Base Suffield and monitored the existing fence line for one month. We then randomly raised 21 sections of fence with goat bars and monitored pronghorn reactions to the enhancement. We recorded behaviour for 967 events for four ungulate species. Pronghorn appeared to use existing "traditional" sites to cross fences and avoided or ignored sites with goat bars. As further results from the fence modification enhancement study become available, we will disseminate our findings to stakeholders, wildlife managers and conservation groups to help guide future work aimed at removing barriers to pronghorn movement.

Partnerships

Alberta Fish & Game Association, Bushnell, Cabelas Canada, Canadian Forces Base Suffield, Onefour Research Station, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), Writing-on-Stone Provincial Park, World Wildlife Fund

Restoring Natural Habitat for Wildlife

We established the Restoring Natural Habitat for Wildlife project (formerly delivered under the title of Ungulate Winter Range Restoration) to help restore natural ecosystem patterns and wildlife habitat values within landscape units (e.g., watershed subbasins) and focal areas that have aged beyond the natural range of variability. To achieve this objective, we provide planning and logistical support to Alberta Environment and Sustainable Resource Development's (ESRD) prescribed burn program, emulate natural disturbance using mechanical clearing techniques, evaluate and monitor restoration activities on public land and on ACA-managed land, and develop landscape plans and targets for enhancement and restoration treatments. In 2012/13, we conducted wildlife habitat inventories on six ACA-managed sites. Results of our inventories will inform future habitat management work. We assisted ESRD in collecting post-burn habitat data within the Upper North Saskatchewan prescribed burn and pre-burn habitat data on Ram Mountain in preparation for a 155 ha burn to enhance bighorn sheep habitat. Our efforts to establish and maintain collaborative partnerships will ultimately lead to greater habitat enhancement support and more efficient co-ordination of implementation and monitoring efforts for habitat enhancement projects.

Partnerships

Alberta Environment and Sustainable Resource Development

Ruffed Grouse Recreational Access

The Ruffed Grouse Recreational Access project enhances small game hunting opportunities on

lands secured by ACA through improvement of trails to encourage hunter access and to enhance habitat conditions for ruffed grouse. In 2012/13, we enhanced 1.7 km of trail on one Conservation Site in the Peace River area in northwestern Alberta. Enhancement activities included removing large debris along grown-in trails, mowing grass and small woody regrowth, and providing grit for ruffed grouse. This work concluded our scoping phase of the project and initiated planning for future enhancement work. We plan to introduce active management activities on ACA-owned Conservation Sites, with a focus on creating larger openings (clearings) and promoting successional aspen regeneration within mature forested blocks.

Partnerships

Agroforestry & Woodlot Extension Society, Alberta Fish & Game Association, Knelsen Sand & Gravel Ltd.

Sharp-tailed Grouse Habitat Inventory and Stewardship

This project attempts to refine an efficient approach for repeatedly sampling sharp-tailed grouse lek sites to estimate occupancy over broad spatial areas. Ultimately, occupancy measures could provide a suitable metric to evaluate population status. In 2011/12, we began trialling a modified approach for detecting leks using remote listening devices (song-meters). We discovered that song-meters provide reliable detections of active leks to a maximum distance of 1,000 m when in place for multiple days. In 2012/13, we used this information to develop an efficient survey protocol to measure occupancy rates of lek sites using repeated measures of occupancy. Using a human observer for one day and song-meters for an additional four days, we obtained reliable information to understand occupancy rates of lek sites, as well as detection rates for lek sites that may or may not be used (or detected) from day to day. This survey technique will improve our ability to efficiently collect occupancy data over a broad geographic region and to detect trends in occupancy over time in relation to habitat change. Additionally, we advanced stewardship partner development with provincial grazing reserves by identifying and providing advice to protect breeding habitat. We also conducted our first advisory workshop to provide insight and stewardship advice to landowners to manage their properties for grouse.

Partnerships

Alberta Environment and Sustainable Resource Development, Blueberry Mountain Grazing Reserve, Wanham Grazing Reserve

Waterfowl Nesting Habitat Enhancement

Nest success can be improved for select waterfowl species using artificial nest structures. Nest tunnels are used to improve nest success for mallards, and artificial cavity nest boxes are used to increase nesting success for common goldeneye and bufflehead. We work with volunteers and partner with Delta Waterfowl and Wildlife Habitat Canada to install and maintain waterfowl nesting tunnels in areas where secure waterfowl nesting habitat limits ground-nesting waterfowl production. Similarly, we partner with Ducks Unlimited Canada to install and maintain nest boxes on ponds in the central parkland area that lack mature aspen needed for cavity nests. We have installed a total of 273 nest tunnels and over 1,200 nest boxes across the landscape. In 2012/13, we monitored 59 tunnels of which 41 were available for use during the 2012 breeding season. Of those available, 28 were used (68%) and 25 (89%) appeared to have successfully hatched ducklings. We monitored 33 nest boxes, installed seven boxes on private land and eight boxes on Conservation Sites in our Northwest region, and provided one next box to a landowner to install on his property.

Partnerships

Alberta Fish & Game Association, Delta Waterfowl, Ducks Unlimited Canada, Syncrude Canada Ltd., Wildlife Habitat Canada, Windsor Plywood

Wildlife Volunteer and Outreach Project

Individuals who volunteer with ACA develop skills and gain knowledge related to conservation and, at the same time, increase our capacity to deliver conservation initiatives. In 2012/13, 19 participants from the Alberta Volunteer Amphibian Monitoring Program and Crowsnest Conservation Society submitted 94 amphibian and 15 reptile observations, including locations of two snake hibernacula (dens). These data represented 80% of the amphibian and 67% of the reptile species native to the province. Data collected by volunteers provide a better understanding of the distribution and status of Alberta's amphibians and reptiles and provide valuable information for land use planning efforts. For example, land use planners can use this information to incorporate appropriate setback distances around breeding ponds used by sensitive species, such as boreal toad, into forestry harvest plans. These partnerships and volunteer relationships are examples of how ACA can work with a network of enthusiastic volunteers to positively impact conservation.

Partnerships

Alberta Environment and Sustainable Resource Development, Crowsnest Conservation Society, TD Friends of the Environment Foundation

Wildlife Habitat Initiative in Low Disturbance Zones – Habitat Resources and Movement Corridors in Southwest Alberta

Many wildlife species seasonally depend on localized, resource-rich habitats during their life cycles. Unique habitat resources, such as mineral licks and dense berry patches, provide essential nutrients to ungulates and carnivores for growth and development during periods of dietary deficiency or increased energy demand. This project identifies the location and ecological value of unique habitat features used by wildlife in areas with currently low levels of human disturbance in southwest Alberta. In 2012/13, we completed our second year of monitoring a subset of known wildlife mineral lick sites using motion-triggered trail cameras. We are currently in the process of analyzing and summarizing data collected at 16 sites. These data will be valuable to resource managers and industry for land use planning. To this end, we drafted recommendations for the spatial and temporal protection of mineral licks to help mitigate human disturbances on wildlife using these sites. We also developed an annotated bibliography, which acts as a repository of literature related to fine-scale habitat resources and landscape-scale movement corridors for ungulates and carnivores in southwest Alberta. Further, we completed a modelling exercise that mapped areas with currently low levels of human disturbance, and we partnered with Anatum Ecological Consulting to map seasonal elk movement routes.

Partnerships

Alberta Environment and Sustainable Resource Development, Anatum Ecological Consulting, Devon Canada Corporation

Wildlife Habitat Initiative in Low Disturbance Zones – Wolverine Distribution Mapping

The wolverine is an icon of the Canadian wilderness and is a flagship species for conservation. The species commonly occurs in areas where human disturbance is low, yet relatively little is known about how it might be affected by future development and climate change. In 2012/13, we continued to work closely with trappers to collect baseline data on wolverines in Alberta. Our primary study objective was to determine wolverine distribution using a variety of different methods in order to relate wolverine occurrence to human activity, disturbance and environmental variables. Our research approach has three main components: (1) fur harvest analysis, (2) trapper questionnaires and (3) field protocol development. Our wolverine harvest analysis revealed an increasing trend in the overall number of registered traplines harvesting a wolverine and in the average number of wolverines harvested per year in the province. Comparing two time periods (1989 to 1999 and 2000 to 2011), wolverine harvests have more than doubled in the Northwest Boreal (105%), have increased in the Northeast Boreal (47%) and Foothills (33%), and have declined in the Canadian Shield (40%) and Rocky Mountains (32%). Preliminary findings from questionnaires indicated that trappers have positive attitudes toward wolverines but also want to continue to harvest them. Finally, we continued to refine our field protocol to inventory wolverines across the province using both hair traps (run poles) and remote cameras. Results from 2011/12 indicated that, although DNA tests were better able to identify gender, camera images alone were reasonably effective at identifying different individuals. We increased our sampling effort during winter 2012/13 by deploying approximately 51 run poles across 30 traplines in a variety of natural regions, levels of disturbance and wolverine densities. In addition to run poles, we have collected observations of wolverine tracks and locations of wolverines from trappers in the field. Analysis of data collected in 2012/13 is ongoing, and results will be available in a progress report in fall 2013.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Trappers' Association, Shell FuellingChange, University of Alberta

Trapper Neil Kimmy and ACA biologist Mike Jokinen collecting hair samples at a research site in the Birch Mountains. photo: ACA, Shevenell Webb

Fisheries Program

Fisheries projects are delivered within three categories: *1) Enhanced Sports Fisheries (Lake Aeration and Enhanced Fish Stocking), 2) Monitoring and Evaluations, and 3) Riparian Conservation.*

Happy anglers

Enhanced Sports Fisheries (Lake Aeration and Enhanced Fish Stocking) provide Albertans with recreational angling in areas of the province where such fishing opportunities don't otherwise exist. The result is reduced pressure on limited native fish stocks and the conservation of important fish species.

An impressive 16 lakes across the province benefited from lake aeration last year, creating great angling opportunities for residents of neighbouring communities by preventing summer or winter fish kills. We also stocked some 120,900 catchable-size (i.e., 20 cm) rainbow trout into 61 lakes through Enhanced Fish Stocking (EFS), creating "put-and-take" trout fisheries where anglers are allowed to harvest up to five fish per day. These sites are located close to urban centres, making them very popular family destinations all summer long. Among the anglers we surveyed, most were very satisfied with their fishing experience at EFS ponds and frequented these sites because they were close to home.

New possibilities

We undertook collaborative graduate student research with the University of Lethbridge to investigate the suitability of waterbodies in urban centres, including those on public recreational grounds and stormwater ponds, to support put-and-take recreational fisheries.

Preliminary results suggest that approximately 10% of urban waterbodies can support viable stocked trout fisheries. Toxicant contamination (heavy metal and pesticides) in these waterbodies was well below federal guidelines, both in water samples and in fish tissue. Given the high proliferation of urban waterbodies across the province, the prospect of even a small proportion of them supporting healthy stocked fish populations could result in several recreational fishing opportunities in urban centres.

Research benefits

We conduct numerous monitoring and evaluation projects to provide information on the population structure, abundance, distribution and life history of priority fish species. We also monitor sports fisheries for angler use, harvest and demographics. We conducted nine projects at five rivers, seven lakes and 13 ponds, as well as interviewed 1,319 anglers during creel surveys. In our sport fish surveys, we focus on walleye, northern pike, Arctic grayling, bull trout, cutthroat trout, rainbow trout and brook trout. Results from these surveys assist ESRD with fisheries management plans and form the basis for fishing regulation changes. They also determine the effectiveness of new management strategies, such as the special walleye fishing license.

Our studies also generate critical information required for the development of key provincial conservation initiatives and resource management policies, including the Alberta Fish Sustainability Index, Alberta Wildlife Status Reports, Alberta Landuse Framework, and State of the Watershed reports under the Alberta Water for Life Strategy.

Our bull trout studies in the east slopes drainages have identified key spawning tributaries, overwintering habitats and subpopulations, as well as inter-basin migrations that were previously unknown. In the Waterton River drainage, our studies highlight the negative impacts of anthropogenic activities (e.g., habitat degradation and introduction of non-native species) on bull trout. Results indicate that encroachment by non-native brook trout into their range poses a considerable threat to the remnant bull trout populations in the drainage. Native bull trout are restricted to areas of the highest thermal habitat quality only, whereas invasive brook and brown trout are captured throughout the drainage. On the Clearwater River project, by incorporating advances in analytical techniques (such as occupancy modelling), we lead the development of population status assessment tools for bull trout.

Improving riparian areas

A healthy riparian area is critical to a healthy waterbody, particularly where located in close proximity to agricultural operations. Working with landowners, we use management tools, such as streambank fencing, bank stabilization, provision of off-channel watering for cattle, education and outreach, to enhance, maintain and protect riparian habitats and ecosystem health. In *Conservation Magazine*, we feature our partnerships with landowners in a special section called "Meet the Landowner." In the 2013 Spring/Summer issue, we took the opportunity to highlight landowners Dean and Janet Doll for protecting 158 acres of land along the North Raven River.

In 2011, we launched a special fencing project in partnership with Syncrude Canada Ltd. to protect riparian habitat along the Owl River in support of the provincial government's walleye restoration program in Lac La Biche. Since 2006, more than 200 million walleye fry have been stocked in the lake, many of which began spawning in 2011 and used the Owl River as their primary spawning system. The goal of this project is to mitigate riparian habitat degradation and ensure long-term availability of optimal walleye spawning requirements in the Owl River. Nearly all (99.7%) of the over 3,000 walleye captured migrating from Lac La Biche into the river in the spring of 2012 were in a spawning stage (i.e., ripe or spent), confirming use of the Owl

River as a walleye spawning system. We renegotiated lease boundaries on eight quarter sections with a leaseholder and installed over 7 km of wildlife-friendly livestock fencing, effectively protecting over 8 km of streambank and 250 ha (618 acres) of riparian habitat.

We also conducted several community outreach activities, including demonstration tours, open houses and workshops, to highlight our projects and increase public interest in the critical role riparian areas play in the landscape. Over 300 people, including 145 high school students, participated in outreach and educational activities.

In total, we delivered 15 on-the-ground riparian restoration projects, including planting over 6,000 seedlings at three sites, completing livestock exclusion fencing at six sites, and installing off-channel cattle watering at eight sites. Together, our projects protected approximately 36 km of streambank and over 300 ha (741 acres) of riparian habitat.

2012/13 Overview

- 16 aerated waterbodies successfully overwintered fish and prevented summerkills
- 120,900 twenty-cm long rainbow trout stocked into 61 waterbodies
- 9 fisheries projects conducted on 25 waterbodies; generated information on population status, recreational harvest, distribution, migration and spawning habitat of sport fish
- Sport fish surveyed: walleye, northern pike, Arctic grayling, bull trout, cutthroat trout, rainbow trout, brown trout and brook trout
- 1,319 anglers interviewed during creel surveys
- Bull trout studies in the east slopes drainages have identified key spawning tributaries, overwintering habitats and subpopulations previously unknown
- 15 on-the-ground riparian conservation enhancements protected 36 km of streambank and over 300 ha (741 acres) of riparian habitat
- 6,000 seedlings and shrubs planted
- 300 people, including 145 high school students, participated in outreach and educational activities

Overall, the success of our Fisheries program activities in 2012/13 involved the support of over 40 partners consisting of provincial and federal governments, industry, watershed groups, NGOs, counties/ municipalities, universities, private landowners and other interested groups.

Melissa Buskas, ACA - Distribution and Abundance of the Migratory Bull Trout Population in the Castle River Drainage (p. 25)

photo: ACA, Tyler Johns

Abundance and Population Structure of Walleye in Milk River Ridge and Forty Mile Coulee Reservoirs

Regular assessment of the abundance and structure of walleye populations in Alberta is necessary to evaluate the effectiveness of current management strategies. We conducted Fall Walleye Index Netting surveys on Milk River Ridge and Forty Mile Coulee reservoirs to determine the current status of these walleye populations. We captured 232 walleye at Milk River Ridge Reservoir, with an estimated catch-per-unit-effort of 19.8 fish/100 m^2 of net/24 h. Walleye ranged in size from 105 to 690 mm fork length and in age from young-of-the-year to 14 years. Males reached maturity by age three and females by age seven. We captured 193 walleye at Forty Mile Coulee Reservoir, with an estimated catch-per-unit-effort of 18.7 fish/100 m^2 of net/24 h. Walleye ranged in size from 203 to 686 mm fork length and in age from one to 15 years. Males reached maturity by age three and females by age five.

Partnerships

Alberta Environment and Sustainable Resource Development

Beaverlodge Riparian Conservation

Bank-side livestock feeding and watering, vehicle fording, and in-stream alterations have degraded the riparian areas within the Beaverlodge River drainage. Since 2004, we have partnered with landowners, provincial and municipal governments, and other conservation organizations to deliver riparian restoration and conservation projects within the Beaverlodge watershed. These projects have included streambank fencing, alternative livestock watering systems and tree planting. We identify potential project sites and approach the associated landowners to collaboratively plan riparian enhancement projects. As projects are delivered, we arrange for the collection of baseline vegetation and water quality information, which allows us to monitor the impact of riparian restoration activities. In 2012/13, we and our partners co-ordinated the planting of 6,149 trees at three sites, including one new project site and two ongoing project sites. We signed three habitat enhancement agreements with landowners who received trees. In total, these agreements enhanced 13.7 ha (33.9 ac) of riparian habitat along approximately 1.4 km of stream length.

Partnerships

Alberta Agriculture and Rural Development, ConocoPhillips, County of Grande Prairie, Penn West Energy, Royal Bank of Canada, West County Watershed Society

Clearwater River Core Area Bull Trout Status

The majority of Alberta's bull trout populations are classified as being *At Risk* or at *High Risk* of extirpation according to Alberta Environment and Sustainable Resource Development's ranking system. The Clearwater River core area bull trout population is classified as being at *High Risk* of extirpation. The objective of our study is to determine the distribution and abundance of bull trout in the Clearwater River core area. We used a patch-based approach for monitoring bull trout distribution modified to enable occupancy estimation and modelling. We delineated patches using stream order, elevation and watershed area resulting in 23 patches in the Clearwater River core area. We determined five sample reaches per patch are necessary to achieve a false absence rate of 0.2 given an estimated bull trout detection probability of 0.3. We considered patches to be occupied when we captured at least one juvenile bull trout (≤150 mm fork length). We used angling and electrofishing gear to estimate adult bull trout (≥250 mm fork length) abundance at four reaches on the Clearwater River. In 2012/13, we captured 62 bull trout ranging in size from 74 to 402 mm fork length at 35 sample reaches. We detected juvenile bull trout in three of eight patches sampled this year for a total of nine detections in the 22 patches (41%) sampled in 2011 and 2012. Bull trout catch at the river reaches ranged from 0 to 1.2 fish/km. Our catch was insufficient for a valid abundance estimate at any of the reaches. We will attempt to estimate abundance again in spring 2013.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Stream Watch Conservation Coalition

Distribution and Abundance of the Migratory Bull Trout Population in the Castle River Drainage

Alberta's bull trout populations have declined over the last century due to anthropogenic disturbances including habitat fragmentation and degradation, migration barriers, introduction of non-native fish species, and overharvest. In southwestern Alberta, the distribution of bull trout has been reduced to approximately 31% of its historical range. Current populations, all of which are at risk of extirpation, exist only in headwater streams. The status of these remnant bull trout populations is unclear due to limited data. We are conducting multi-year population and spawning habitat assessments throughout the Castle River drainage to update the status of these remnant populations. During the fall of 2012, we installed fish traps in the South Castle River, West Castle River, Carbondale River and Mill Creek to capture post-spawn migratory bull trout. We marked all adult bull trout (>300 mm fork length) with an internal transponder tag to track individuals during recapture events. We captured a total of 150 adult migratory bull trout in four major spawning streams: 35 in South Castle River, 4 in West

Castle River, 69 in Carbondale River, and 42 in Mill Creek; 97 fish were tagged and 53 fish were recaptured from 2011 trapping efforts. We conducted redd counts in streams throughout the study area and observed a total of 343 redds in 86 stream kilometres: 126 in South Castle River, 9 in West Castle River, 82 in Mill Creek and 126 in the Carbondale River drainage. Following year two of the study, we have a better understanding of the bull trout population in the Castle River drainage, and we anticipate learning more about this population as we continue the project for at least another two years.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Stream Watch Conservation Coalition, Devon Canada Corporation

Edson River Riparian Conservation

We initiated a riparian restoration project in the Edson River watershed in 2010/11 after our survey of riparian health conducted in the watershed that year showed that almost half (49%) of the riparian areas were degraded. In 2011/12, we approached local landholders to present them with information on riparian conservation and solicit their interest in participating in enhancement projects, and we worked with co-operating landholders to create a plan to enhance the riparian areas associated with their properties. We also measured water quality as part of a long-term monitoring protocol. Our goal in 2012/13 was to continue these activities and build on our accomplishments from previous years. Our measures of water quality indicated that total coliform counts exceeded federal guideline limits at several sites in 2012/13; this result differed from 2011/12 when all measured water quality variables were within federal guidelines for the protection of aquatic life. Overall, our activities on the project in 2012/13 were minimal because of key staff resignations; we will re-establish intensive activities on this project in 2013/14.

Partnerships

Fisheries and Oceans Canada, Penn West Energy, Royal Bank of Canada

Enhanced Fish Stocking Project

The Enhanced Fish Stocking Project (EFSP) provides anglers with increased opportunities to catch and harvest rainbow trout in parts of Alberta where angling opportunities are limited or do not exist. Recipient waterbodies are prone to winterkill and require annual rainbow trout stocking to maintain angling opportunity. All rainbow trout stockings are delivered through contracts with private growers. In 2012/13, we stocked a total of 61 waterbodies with 121,900 rainbow trout during 86 stocking events. Approximately 60% of these stockings were completed prior to the May long weekend. Since 1998 when ACA assumed responsibility for the EFSP, we have stocked almost two million rainbow trout in 1,292 stocking events.

Partnerships

Aux Sable

Lake Aeration

We use aeration as a fisheries management technique to provide Albertans with recreational angling opportunities in areas of the province where such opportunities are otherwise limited. Aerated waterbodies are typically shallow, eutrophic, experience prolonged ice cover, and are prone to both summer and winter fish kills. We use aeration to maintain dissolved oxygen levels above 3 mg/L to promote year-round survival of stocked trout. In 2012/13, we aerated 16 waterbodies across Alberta. All of our aerated waterbodies successfully overwintered trout, and no summerkills were reported at any of these waterbodies. We identified and continued to develop potential aeration opportunities to create or enhance angling opportunities. Further, we established and maintained financial and in-kind partnerships for existing and new aeration projects.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Tourism, Parks and Recreation, Canadian Forest Products Ltd., Clear Hills County, Daishowa-Marubeni International Ltd., Devon Canada Corporation, Fisheries Enhancement Society of Alberta, Municipal District of Greenview No. 16, Northern Sunrise County, Spring Lake Campground, TransAlta, Trout Unlimited Canada – Yellowhead Chapter, Village of Spring Lake

Lentic: Walleye Selective Harvest, 2012

A restrictive management strategy used to prevent overharvest of walleye in Alberta has resulted in increases in numbers of walleye but few large fish. Plausible explanations for the large number of small yet old walleye include density compensation resulting in stunted growth, size-selective mortality of larger fish, or selective-harvest-induced genetic changes in growth rate. Paradoxically, management solutions for density compensation and size-selective mortality are in opposition: either harvest more or harvest less, respectively. A Special Harvest License (SHL; i.e., a draw and tag system) was designed to increase the number of medium- to large-size walleye. The goal of this project is to evaluate the effectiveness of this regulation to reverse size-selective harvest. We conducted creel surveys at Iosegun and Smoke lakes using single-access methods during the summer of 2012. Survey effort was 25% of the available days, and we interviewed 569 and 357 anglers from Iosegun and Smoke lakes, respectively. Estimated angling pressure at Iosegun Lake was 3.2 h/ha (or 2,384 angler-trips or 4,264 angling-hours) and at Smoke Lake was 3.3 h/ha (or 1,370 angler-trips or

3,153 angling-hours). The SHL available at both lakes were undersubscribed for both <43 cm (total length) and 43 to 50 cm walleye. Walleye harvest and release catch rates at Iosegun Lake were 0.26 fish/h and 1.48 fish/h, respectively, and at Smoke Lake were 0.17 fish/h and 1.88 fish/h, respectively. No illegal harvest (i.e., harvest without a SHL) was observed at either lake. Of the anglers interviewed, 19.3% at Iosegun Lake and 19.0% at Smoke Lake had a SHL.

Partnerships

Alberta Environment and Sustainable Resource Development, Canada Summer Jobs, Municipality of Fox Creek

Manuscript Development for the Beaver River Index of Biological Integrity Project

Between 2009 and 2011, we developed an Index of Biological Integrity (IBI) for the Beaver River to help the Beaver River Watershed Alliance (BRWA) develop an Aquatic Health Ecosystem Monitoring Program for the watershed. We submitted a full project report to the BRWA in March 2012. Our goal in 2012/13 was to develop this report into a manuscript targeted for publication in a peer-reviewed scientific journal that not only would present our Beaver River IBI study to the larger scientific community but also would contribute to a better understanding of the influences of human land uses on the health of aquatic ecosystems in general. This project was suspended when the project leader resigned.

Partnerships

(None)

Mikkwa River Arctic Grayling: A Reference Population Survey

A key component to evaluate and manage human impacts on fish populations is the assessment of individual fish stocks. For results to be applicable across broad spatial and temporal scales, these assessments must be conducted in a consistent manner. To this end, Alberta Environment and Sustainable Resource Development is developing a new tool, the Alberta Fish Sustainability Index (FSI), to bring consistency to individual fish stock assessments across the province. The FSI requires basic demographic data from undisturbed or minimally disturbed "reference" populations that will serve as benchmarks against which data from more disturbed populations can be measured. In 2012/13, our objective was to collect data from one such reference system, the Mikkwa River, to assist in the development of a FSI for Arctic grayling. We deferred implementing this project until 2013/14 because key staff involved in project delivery resigned.

Partnerships

ConocoPhillips

Owl River Walleye Spawning-Run Assessment

The Alberta government has stocked over 200 million walleye fry and fingerlings in Lac La Biche as part of a management strategy to restore walleye populations in the lake. Many of these stocked fish were expected to reach sexual maturity by 2013, presumably resulting in larger spawning runs and greater natural recruitment of walleye in the lake. The Owl River is considered to be a primary spawning system for Lac La Biche walleye. In 2012/13, we conducted a mark-recapture survey to determine the magnitude of the walleye spawning run from the lake into the Owl River. Nearly all (99%) of the 3,183 walleye captured migrating from the lake into the river were in a spawning stage (i.e., ripe or spent). Males (69%) were more abundant in the catch than females (31%). In general, females were larger than males. Males ranged in size from 355 to 673 mm total length, with a mean size of 530 ± 0.68 mm (n = 2,155). Females ranged in size from 361 to 760 mm total length, with a mean size of 575 ± 0.90 mm (n = 956). Dominant size ranges were 520 to 580 mm for males and 560 to 600 mm for females, constituting 83% and 85% of the male and female catch, respectively. Due to low recapture rates, we were unable to derive reliable abundance estimates of the walleye spawning run during the current survey, but we will make a second attempt in 2014/15.

Partnerships

Alberta Environment and Sustainable Resource Development, Syncrude Canada Ltd.

Peace River Sport Fishery Survey

The portion of the Peace River located in northwestern Alberta is categorized as a cool-water fishery that supports sport fish species such as northern pike, walleye and goldeye. Angling is typically concentrated at the mouths of tributaries flowing into the mainstem. However, little is known about recreational angling pressure along this portion of the river. Our goal for this project is to conduct a creel survey along a representative section of the river to generate data that will aid Alberta Environment and Sustainable Resource Development (ESRD) in their review of current sport fishing regulations and other management practices. In 2012/13, our objectives were to define the spatial extent of the survey, identify logistical needs, evaluate access points, and determine relative use of each access point using trail cameras. We visited access sites on the Peace River from the British Columbia border downstream to Fort Vermilion. Overall, access sites were widespread resulting in long travel times between sites and other logistical challenges. As well, the time and travel needed for regular maintenance of trail cameras would not make their use efficient. In collaboration with ESRD, we decided that the scope of the study needed to be scaled back to make it logistically and financially feasible. In 2013/14, we will survey a 100 km section of

the Peace River centred on the town of Peace River.

Partnerships

Alberta Environment and Sustainable Resource Development

Quality Stocked Fishery Assessment

To prevent winterkill of stocked trout populations, we use surface or subsurface aeration at 17 waterbodies across Alberta to enhance winter dissolved oxygen levels. Aeration promotes year-round survival of stocked fish and creates sport fisheries capable of producing large trout. However, angler use has not been evaluated at these lakes despite their apparent success and popularity among anglers. In 2012/13, we conducted creel surveys to assess angler use and catch rates at three popular rainbow trout stocked and aerated lakes in west-central Alberta: Beaver, Fiesta and Ironside lakes. We estimated 2,777, 498 and 331 anglers fished for 8,666, 1,791 and 1,059 hours in summer 2012 at Beaver, Fiesta and Ironside lakes, respectively. Angling pressure at Beaver, Fiesta and Ironside lakes was approximately 286, 252 and 321 h/ha, respectively, and catch rate was 0.54, 0.71 and 0.65 fish/h, respectively. At Beaver Lake, anglers harvested 264 and released 4,547 rainbow trout. Of the fish harvested at Beaver Lake, 41% were over and 59% were under the 40 cm (total length) regulation. At Fiesta and Ironside lakes, which are managed by a zero daily bag limit (i.e., catch and release) regulation, anglers released 1,264 and 693 rainbow trout, respectively. No trout were observed harvested at these lakes.

Partnerships

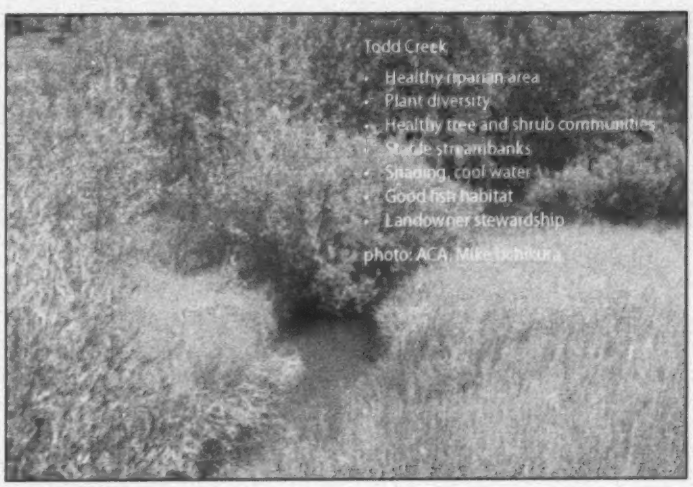
Alberta Environment and Sustainable Resource Development, Alberta Stream Watch Conservation Coalition, Alberta Student Temporary Employment Program

Southern Riparian Conservation

For over a decade, we have supported riparian enhancement initiatives in southern Alberta. Our past projects involved working with Beaver Creek Watershed Group, Todd Creek Watershed Group and individual landowners. Six watershed groups in the south are now engaged, and several key conservation groups and counties view ACA as a valuable partner. In 2012/13, we contributed to two riparian fencing projects, three off-site watering projects, and three off-site watering/riparian fencing combination projects. These projects enhanced over 25 km of riparian and upland habitat. One off-site watering/riparian fencing combination project created a riparian pasture corridor within the headwaters of Mosquito Creek. Piping from springs will provide livestock with water in the uplands; this phase has been completed and approximately 20 km of riparian fencing will be installed in 2013/14. The second off-site watering/riparian fencing project created a riparian pasture along Sharples Creek on the Waldron Grazing Co-op. We also participated in several extension activities, including the distribution of ACA promotional items at the Pincher Creek Watershed Group's "Blueweed Blitz" weed pull, Youth Range Days Workshop, and the Drywood/Yarrow Conservation Partnership's educational school field day involving approximately 200 youths and adults. We attended workshops and meetings with other watershed groups, partner conservation groups and interested parties, and we attended a watershed tour organized by the Drywood/Yarrow Conservation Partnership and partner groups. We have developed strong working partnerships with the Southwestern Alberta Conservation Partnership and the Oldman Watershed Council, and future projects have been initiated. Our continued involvement with watershed groups and their partners will be valuable in facilitating on-the-ground change.

Partnerships

Alberta Agriculture and Rural Development, Alberta Environment and Sustainable Resource Development, Alberta Riparian Habitat Management Society (Cows and Fish), Beaver Creek Watershed Group, Cardston County, County of Lethbridge, County of Warner, Drywood/Yarrow Conservation Partnership, Indianfarm Creek Watershed Group, Lyndon Creek Watershed Group, Oldman Watershed Council, Pincher Creek Watershed Group, Southwestern Alberta Conservation Partnership, Trout Unlimited Canada, Todd Creek Watershed Group, Waldron Grazing Co-op Ltd., Waterton Watershed Group



Stream Crossing Remediation

Arctic grayling populations in Alberta have been severely declining since the 1950s, primarily due to habitat fragmentation resulting from improperly installed or hanging culverts. To generate information that will aid in mitigating these declines, we have conducted stream crossing inventory surveys on several watersheds. However, overall remediation activities to mitigate fish habitat fragmentation and restore connectivity are either minimal or non-existent in most watersheds. In 2011/12, we reviewed our stream crossing information and developed a prioritized list of problem culverts in five watersheds to be targeted for remediation. In 2012/13, our goal was to use this prioritized list to solicit funding and establish partnerships with crossing owners and other interested stakeholders to initiate remediation activities. We are yet to establish successful partnerships, but we will continue these efforts in 2013/14.

Partnerships

(None)

Summerkill Data Summary

We use both winter and summer aeration as fisheries management techniques to promote year-round survival of stocked fish and to provide Albertans with recreational angling opportunities in areas of the province where such opportunities are otherwise limited. During the open water seasons of 2009 to 2011, we monitored water quality at five stocked waterbodies where fish were suspected to be at high risk of summer fish kills: Beaver, Fiesta, Figure Eight and Swan lakes and Dipping Vat Reservoir. No summerkill events were observed or reported at any of the waterbodies during the study period. We rated the risk of summerkill as moderate at Swan Lake, Figure Eight Lake and Dipping Vat Reservoir and as low at Beaver and Fiesta lakes.

Partnerships

(None)

Trout Stocking Evaluation 2012/13

Stocking trout to create put-and-take fisheries is a popular management tool for providing recreational fisheries. We annually stock approximately 60 lakes with 131,000 trout through our Enhanced Fish Stocking Project. Most stocked lakes are situated close to small municipalities, making them popular destinations. Initial results of our studies suggest that put-and-take sport fisheries are composed of populations of many fewer fish than previously believed. Despite the importance of our stocking project, very little information exists on the suitability of our stocked lakes to support populations of stocked fish and sport fisheries. To assess the suitability of these lakes for stocking, we collected water quality and bathymetric data from 47 of 55 lakes we stocked during 2011/12 and 2012/13. We collected water samples during the spring and summer to detect changes in water quality during the open-water sport fishing season. Turbidity and concentrations of total phosphorous and chlorophyll-a were higher in summer than in spring, whereas concentrations of nitrate-nitrite were higher in spring than in summer. Our stocked lakes varied considerably in size (0.4 to 17 ha, mean = 3.2 ha), shape and depth. Sampling and analysis will continue in 2013/14.

Partnerships

TD Friends of the Environment Foundation

Waterton Drainage Bull Trout Status Assessment

In the Waterton River watershed, bull trout are considered at high risk of extirpation as a result of overharvest, habitat fragmentation and degradation, and competition from invasive species. While historical declines are well documented, current information on bull trout distribution in the Waterton River watershed is essential to identify and prioritize remediation efforts for recovery of the species. In 2012/13, we began a comprehensive inventory of the Waterton River watershed to determine the current distribution of bull trout populations relative to thermal habitat and historical distributions. We electrofished the entire Waterton River and major tributaries upstream of Waterton Reservoir, including Maskinonge Lake and Drywood Creek up to the Gulf Dam. We monitored stream temperature from May through September at 25 locations systematically spaced across the watershed to identify temperature gradients and suitable thermal habitats for juvenile bull trout. We captured a total of 81 bull trout, all of which occurred in the Blakiston Creek watershed and the Waterton River between Middle and Lower Waterton lakes. Bull trout ranged in size from 77 to 495 mm fork length. The most widespread sport species captured in the tributaries was brook trout, whereas mountain whitefish and brown trout dominated the catch in the Waterton River. Bull trout were captured only where thermal habitat suitability was high, whereas invasive brook trout and brown trout were captured throughout the drainage. We captured brook trout and *bull trout x brook trout* hybrids in Blakiston Creek, suggesting brook trout are a considerable threat to the remnant bull trout population in the Blakiston Creek watershed.

Partnerships

Alberta Environment and Sustainable Resource Development, Nature Conservancy of Canada – Waterton Park Front, Parks Canada, University of Lethbridge

Land Management

Land Management projects are delivered within three categories: *1) Habitat Conservation, 2) ACA Conservation Site Management, and 3) Recreational Opportunity Initiatives.*

Conservation impact

The primary goal of our Land Management program is the conservation of important wildlife and fish habitat across Alberta. This habitat, known as Conservation Sites (see *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide*) spans hundreds of thousands of acres across Alberta. Each site has its own unique characteristics and provides an array of opportunities to hunt, fish, forage or view wildlife. Conserving habitat in perpetuity and providing sustainable recreational opportunities, and working with landowners and member groups to achieve these goals, is what ACA's Land Management program is all about.

This year, we acquired nine new Conservation Sites, including two land donations, covering over 4,098 acres (1,658 ha) and valued at over $3 million. Two of these new acquisitions allowed us to expand Warrensville and Northstar Conservation Sites by 796 acres (322 ha). A majority of our acquisitions have been collaborative efforts with other conservation organizations, private donors and corporate partners. Through our continued partnership with Suncor Energy Foundation and Shell Canada Energy, we expanded our terrestrial conservation work in the boreal regions of Alberta. Notably, we celebrated our 10-year partnership with Suncor. In this time, we attained some major milestones, including the securement of 27 Conservation Sites totaling 6,500 acres (2,630 ha) and the initiation of voluntary offsets in Alberta (see *Conservation Offsets: A Working Framework for Alberta*). This partnership was also recognized as an Emerald Award finalist.

Private landowners also play a key role in our conservation efforts and successes. Our Landowner Habitat Program (LHP) is designed to conserve key wildlife and fish habitat and enhance recreational access on deeded lands using term agreements. This year, we signed eight LHP agreements totaling 798 acres (322 ha). We signed two additional agreements specifically designed to protect key riparian habitat along the North Raven River, which brings the total number of riparian habitat agreements on Clear Creek, North Raven River and Raven River to 11.

Habitat management

Land management is considered a bit of an art, which requires a lot of heart and creativity. We are landowners of a significant amount of habitat. If you have a backyard, or own land, you know there is a lot involved in maintaining and ensuring proper stewardship. For us, this means fencing and fence repairs, installing Conservation Site signs and boundary signs, managing weeds, completing baseline inventories, monitoring conservation easements and compliance with agreements, managing contracts and other infrastructure to fix and upgrade, addressing land use referrals, and completing inspections on over 200,000 acres (80,937 ha) of land that ACA either owns or manages. All in all, ACA staff and seasonal employees spent over 11,000 hours completing inspections and maintenance on over 170 Conservation Sites across Alberta, covering nearly 120,000 acres (48,562 ha) of habitat. But we can't accomplish all of the above alone; volunteers, member groups and partners are extremely valuable and assisted us immensely in completing our work.

To guide us, we develop detailed management plans that provide short- and long-term objectives on how the site is to be managed in the future. These plans are a collaborative effort between ACA and other conservation partners who are actively involved in the management of Conservation Sites. We developed 31 Conservation Site management plans for land we own or manage (Crown), focusing a considerable amount of effort on enhancement and restoration to improve the overall quality for wildlife and fish. This year, we completed habitat enhancements on 27 Conservation Sites. Work included developing a 5.6 acre (2 ha) wetland, enhancing upland game bird and ungulate habitat, planting over 245,000 trees and shrubs, restoring over 480 acres (194 ha) of native grass, installing wildlife-friendly fencing, maintaining and installing waterfowl nest tunnels and nest boxes, addressing invasive species management, enhancing parking areas for users, completing site clean-up, and completing trial weed control projects and site preparation for various vegetation enhancements on other Conservation Sites. We installed new site signage at 24 Conservation Sites and boundary signage at 40 Conservation Sites. We also provided recommendations on 37 land use referrals.

As part of Land Management we also manage a variety of fisheries access sites that provide opportunities for angling at key streams, stocked ponds and other lakes. The 29 fisheries access sites provide access to four key rivers and 25 lakes across Alberta, thereby increasing quality recreational opportunities for the public. In 2012/13, we inspected and maintained all 29 fisheries access sites and completed various upgrades and enhancements at eight sites to improve overall aesthetics. We maintained 22 in-kind and financial partnerships that contributed to various enhancements on these sites. Volunteer stewards, industry, government, municipalities, various corporate partners and other organizations collaborated with ACA to provide enhanced angling opportunities.

We gratefully acknowledge the co-operation and support of our many partners and private landowners; without their support and involvement, these accomplishments could not have been achieved.

The great outdoors: yours to discover

The *Discover Alberta's Wild Side: Annual Outdoor Adventure Guide* profiles 743 Conservation Sites covering over 292,000 acres (118,168 ha) across Alberta. Secured by ACA and our partners, these sites offer a variety of sustainable recreational opportunities including hunting, angling, foraging and wildlife viewing. The popularity and reach of the Guide continues to increase year after year: we distributed 80,000 copies in 2012/13. The inclusion of Alberta Fish & Game Association, its affiliated clubs, and Ducks Unlimited Canada conservation sites makes this one of the most extensive outdoor guides available.

2012/13 Overview

- 11 new Conservation Sites secured totaling 4,096 acres (1,657 ha)
- $3,000,000 in lands secured (approximate value)
- 798 acres (322 ha) of habitat protected by executing 8 renewed and new landowner habitat retention agreements
- 170 Conservation Sites inspected
- 27 Conservation Sites underwent habitat enhancements
- 245,000 trees and shrubs planted and 480 acres (194 ha) of native grass seeded
- 11,000+ hours spent on Conservation Site management and maintenance
- 29 fisheries access sites maintained, of which 8 received upgrades and enhancements
- 24 Conservation Site signs installed
- 26 Conservation Sites required recommendations on land use referrals
- 31 management plans completed

The success of our Land Management program activities is a testament to the support and effort of over 80 partnerships, including government, industry, NGOs, counties/municipalities, leaseholders, private landowners, corporate partners and other interested groups.

Sandstone Ranch Conservation Site

Partners: ACA, AFGA, Environment Canada, ESRD, NCC, Sandstone Ranch Grazing Co-op

photo: ACA, Paul Jones

Discover Alberta's Wild Side
Annual Outdoor Adventure Guide

Map Grid F3 6

Conservation Site Management

ACA is responsible for the annual maintenance and management of over 200,000 ac of titled and Crown land in Alberta. Our Conservation Site Management Program is responsible for the stewardship of these conservation assets in accordance with site management plans. Specific objectives of this program are to deliver the program in an efficient and timely manner, complete inspections and necessary maintenance, and enhance or restore habitat on Conservation Sites. Collaboration is key to the management of these sites, which is achieved through the participation and support of our numerous partners throughout Alberta. In 2012/13, we inspected and maintained 184 Conservation Sites across Alberta. We completed routine maintenance on 60 sites, including mechanical and chemical vegetation control, fence repairs, nest box repairs and other maintenance requirements. We installed 24 Conservation Site signs and provided recommendations on 37 industrial referrals. We completed enhancement projects on 27 Conservation Sites, including the planting of 173,500 spruce trees, 20,200 pine trees, 41,500 aspen trees, over 11,000 shrubs, and 480 ac of native grass to benefit ungulates, upland game birds and waterfowl. We also completed access improvements at five sites to enhance sustainable access opportunities.

Partnerships

Agroforestry & Woodlot Extension Society, Alberta Environment and Sustainable Resource Development, Alberta Fish & Game Association, Alberta Innovates – Technology Futures, Alberta Sport, Recreation, Parks and Wildlife Foundation, Bow River Irrigation District, Calfrac, County of Lethbridge, County of Newell, County of Warner, Ducks Unlimited Canada, Eastern Irrigation District, Edmonton and Area Land Trust, landowners, Nature Conservancy of Canada, Pheasants Forever – Calgary Chapter and Chinook Chapter, Shell Canada Energy, Strathcona Wilderness Centre, Tree Canada, volunteer stewards, Wildlife Habitat Canada

Conservation Site Management

ACA crew laying out landscape fabric to prepare a field for the planting of white spruce seedlings.

photo: ACA, Roy Schmidtke

Corporate Partners Program

Our Corporate Partners Program secures important habitats for wildlife and enhances recreational opportunities for Albertans. The program is guided by nine provincially-developed priority "focus areas" that help prioritize securement efforts and opportunities. Collaborative partnerships with conservation groups, industry, various companies and private individuals allow us to maximize assets and efficiency of our securement efforts. Together, we conserved 1,275 ac in 2012/13 through the acquisition of five Conservation Sites. Two of these five acquisitions were expansions of existing Conservation Sites. The secured lands have a total estimated land value of approximately $650,000.

Partnerships

Alberta Fish & Game Association, Alberta Sport, Recreation, Parks and Wildlife Foundation, Environment Canada – Ecological Gifts Program, Shell Canada Energy, Suncor Energy, Suncor Energy Foundation

Fisheries Access Site Management

Our Land Management Program encompasses activities intended to conserve, protect and enhance wildlife and fish habitat and to increase sustainable recreational opportunities, including angling and hunting. One of the activities of the program is the management of fisheries access sites across Alberta. The Fisheries Access Site Management Program is intended to provide angling opportunities to key streams, rivers and lakes throughout the province. In 2012/13, we inspected and maintained 29 fisheries access sites. We upgraded eight sites with improvements to parking facilities (Beaver Lake, Birch Lake, Hansen Reservoir, McKinnon Flats and Mirror Reservoir), walking trails and a floating dock (Fiesta Lake), as well as new infrastructure, such as outhouses (Hansen Reservoir, Kerbes Pond and Mirror Reservoir) and signage (Birch Lake, Hansen Reservoir and Ironside Pond). We were awarded $15,230 by the Alberta Lottery Fund to complete improvements at McKinnon Flats. Funding was deferred until 2014/15 due to late notification by the grantor. We also received $1,000 from Peace County Fly Fishers for upgrades to facilities planned for 2013/14 at East Dollar Lake. We engaged 22 partners who provided financial contributions or in-kind support in 2012/13. We continued discussions with Alberta

Corporate Partners Program Securement Transactions in 2012/13

Project Name	Corporate Partner	Size (ac)	Special Features
Albright NE-14-072-11-W6M	Suncor Energy Foundation	160	This site is located approximately 42 km from Grande Prairie. It consists of a unique mixture of aspen/willow-dominated forest along its east boundary and a spruce-dominated forest near its centre. Two small creeks flow through the site from the west feeding into a permanent wetland. A peat bog occurs south of the wetland, contributing to the uniqueness of this site.
Leddy SE-10-085-23-W5M NE-10-085-23-W5M	Suncor Energy Foundation	320	This site is located approximately 32 km northwest of Peace River. To the north of Highway 986, the habitat consists largely of mature coniferous forest; to the south, it consists of mixedwood forest. The undisturbed nature of the site makes it suitable habitat for a variety of wildlife species.
Musidora 3 NW-23-053-11-W4M	Suncor Energy Foundation	158.6	This site is located approximately 35 km southwest of Vegreville and increases connectivity between Musidora, Musidora 2, South Plain Lake and Plain Lake Conservation Sites. It provides excellent habitat for deer, moose and elk.
Northstar (expansion) NW-28-090-24-W5M SW-28-090-24-W5M NE-28-090-24-W5M SE-28-090-24-W5M	Suncor Energy Foundation	636	This site is located approximately 70 km northwest of Peace River and 15 km southwest of Manning. It will be managed with Alberta Fish & Game Association's Northstar Conservation Site to create a large conservation area (~960 ac). The combination of haylands, wetlands and mixedwood forest provides excellent summer and winter habitat for elk, moose and deer.
Warrensville (expansion) NE-22-084-23-W5M SE-15-085-23-W5M	Suncor Energy Foundation	320	This site is located approximately 27 km northwest of Peace River and will be managed with ACA's Warrensville Conservation Site to create a large conservation area (~640 ac). Mixedwood forest dominates the landscape, with some wet areas in the southeast corner. The site provides excellent habitat for moose, deer, black bear and pileated woodpeckers.
TOTAL		1594.60	

Environment and Sustainable Resource Development and other potential partners to assess the feasibility of developing a new fisheries access site in our Central region and expanding an existing site in our Northwest region.

Partnerships

Alberta Environment and Sustainable Resource Development, Alberta Fish & Game Association, Alberta Lottery Fund – Community Facility Enhancement Program, Alberta Summer Temporary Employment Program, Canada Summer Jobs, Clearwater County, County of Camrose, County of Newell, County of Warner, Devon Canada Corporation, Lamont Fish & Game Association, Municipal District of Greenview No. 16, Municipal District of Northern Lights, Municipal District of Rocky View, North Raven River Working Group, Shell Canada Energy, Town of Lamont, Trout Unlimited Canada – Central Chapter and Yellowhead Chapter, Wetaskiwin County, Weyerhaeuser

Landowner Habitat Program

Alberta's natural land base is under intense pressure from a variety of sources. In 2012, Alberta's population grew by 2.5%—the highest provincial rate of increase and much higher than the Canadian growth rate of 1.1%. According to Statistics Canada, this increase was due to strong growth in the natural increase (births minus deaths) and in net international and inter-provincial migration. Expansion of urban areas contributes to habitat loss and fragmentation. Land in crops increased by about 500,000 ha (1.2 million ac) between 1986 and 2006. Alberta uses more land than the state of Nebraska (52 million ac or 81,000 square miles) for crop and livestock production (or about 30% of Alberta's land area). Industrial activities related to oil and gas and mining also contribute to habitat loss, fragmentation and degradation.

In 1986, Alberta Fish and Wildlife Division launched the Landowner Habitat Program (LHP) to prevent the destruction of native habitat on privately owned lands. The program was structured to make annual or lump-sum payments to landowners who agreed to retain wildlife habitat on their land by signing a legally binding agreement. While the program provided a cost-effective tool for preserving habitat, it did not guarantee recreational access to the habitat. In 2008, ACA modified the LHP agreement to include recreational access as a condition of the agreement. The program requires landowners to retain and idle habitat for wildlife and to provide reasonable public foot access. Fiscal year 2012/13 was the fifth year that we offered these agreements to landowners. Four landowners with expiring agreements were unwilling to renew their agreements. Three new landowners and five landowners with agreements expiring prior to 2012/13 signed 5- to 20-year agreements. These eight agreements protect approximately 798 ac of high-quality habitat and provide reasonable public foot access for sustainable recreational opportunities. We currently manage 57 LHP agreements across the province, protecting approximately 8,250 ac of wildlife and fish habitat.

Partnerships

Landowners

Management Plan Development

We are dedicated to efficiently managing Conservation Sites that we either hold title to or manage on behalf of the Crown. We develop management plans for these sites to provide clear direction for their overall future management. These plans also act to streamline the roles and responsibilities and other activities that are agreed upon by our conservation partners. We are committed to having management plans completed for partner review within six months of purchasing a new acquisition. We also review existing management plans to ensure they are complete and up to date. In 2012/13, we developed, revised or updated 31 management plans. Of these, 10 were for new acquisitions (sites acquired since 2011) and 21 were for sites acquired prior to 2012.

Partnerships

Albert and Pirkko Karvonen, Alberta Environment and Sustainable Resource Development, Alberta Fish & Game Association, Pheasants Forever – Calgary Chapter and Chinook Chapter, Shell Canada Energy

Owl River Riparian Conservation

The Owl River is the primary spawning river for Lac La Biche walleye. However, potential reductions in water quality and spawning habitat in the Owl River from riparian habitat degradation could limit success of the provincial government's Lac La Biche Walleye Restoration Program. In 2012/13, we used previously collected baseline data on riparian health to focus our restoration activities along a 30 km stretch of the Owl River where livestock grazing is present on leased and private lands. We successfully negotiated an agreement with one grazing leaseholder on eight quarter sections, whereby portions of the grazing lease would be redrawn for the purposes of riparian habitat conservation. We installed over 7 km of wildlife-friendly livestock fencing, effectively protecting over 8 km of river used by migrating spawning walleye and fry and conserving over 250 ha of aquatic, riparian, wetland and upland habitats. We are currently examining an agreement on a ninth quarter section under the same grazing lease with the potential to secure an additional 15 to 20 ha of riparian and wetland habitat.

Partnerships

Alberta Environment and Sustainable Resource Development, Syncrude Canada Ltd.

Provincial Habitat Securement Program

Through this program, we secure important wildlife and fish habitats through land purchases, land donations and protective notations on Crown lands. These habitats provide Alberta's outdoor enthusiasts with year-round sustainable recreational opportunities. The program is guided by 27 provincially-developed priority "focus areas" that help prioritize securement efforts and opportunities. Collaborative partnerships with conservation groups, industry, various companies and private individuals allow us to maximize assets and efficiency of our securement efforts. Together, we conserved 1,206 ac on four sites in 2012/13, including two land donations and two land acquisitions with a total estimated land value of $1,390,200.

Partnerships

Alberta Fish & Game Association, Canadian Natural Resources Limited, Ducks Unlimited Canada, Government of Canada Habitat Stewardship Program for Species at Risk, Nature Conservancy of Canada, Rae and Carol Allen, Theodore Reiner and Faith Reiner-Higgins, TransCanada Pipelines, Wildlife Habitat Canada

Habitat Securement Program Transactions in 2012/13

Project Name	Securement Tool & Partners	Size (ac)	Special Features
Allen NW-24-056-11-W5M NE-24-056-11-W5M	A private land donation to Alberta Conservation Association and Alberta Fish & Game Association.	320	This site is located approximately 32 km southwest of Mayerthorpe and is situated along the fringe of agricultural land and Crown land, which increases its value for wildlife, particularly ungulates. The site also provides excellent habitat for black bear and other wildlife species.
Durda/ Bankhead NW-03-079-08-W6M NE-04-079-08-W6M	A private land donation to Alberta Conservation Association.	322	This property is located 30 km east of Spirit River and forms part of the 1700 acres Shell True North Forest. Habitat consists of a mix of old hay fields and mature forest with the Ksituan River valley running through the middle of the property.
Hebert Lake Uplands NW-19-037-18-W4M SE-19-037-18-W4M SW-20-037-18-W4M	A collaborative acquisition between Alberta Conservation Association, Alberta Fish & Game Association, Ducks Unlimited Canada, Nature Conservancy of Canada and Wildlife Habitat Canada.	259.4	This site is located 15 km southwest of Stettler along the shore of Hebert Lake and provides connectivity between Hebert Lake and Beltz Lake Conservation Sites. It provides excellent nesting habitat for waterfowl and grassland songbirds and excellent habitat for moose and deer.
Lockerby NW-33-036-25-W4M NE-33-036-25-W4M	A collaborative acquisition between Alberta Conservation Association, Alberta Fish & Game Association, Canadian Natural Resources Limited, Nature Conservancy of Canada and Wildlife Habitat Canada.	319	This site is located 33 km southeast of Red Deer in the heart of the Pine Lake Moraine and provides connectivity between Stonhouse and Anne Pope Conservation Sites. It boasts tremendous wetland abundance and provides excellent habitat for birds, furbearers, deer, moose and elk.
Reiner NW-09-083-05-W6M SW-16-083-05-W6M	A private land donation to Alberta Conservation Association.	322	This site is located 30 km northwest of Fairview along the slopes of Hines Creek. Hines Creek flows into the Peace River, which supports an important wildlife travel corridor. This site provides excellent summer forage and winter range for elk, moose and deer.
Ross Creek NW-08-012-03-W4M NE-08-012-03-W4M SW-08-012-03-W4M SE-08-012-03-W4M NW-09-012-03-W4M SW-09-012-03-W4M	A collaborative acquisition between Alberta Conservation Association, Alberta Fish & Game Association, Government of Canada Habitat Stewardship Program for Species at Risk, LaTerra Ventures Inc., Medicine Hat Fish & Game Association, Pheasants Forever - Calgary and Chinook Chapters.	960	This site is located 15 km east of Medicine Hat along the Trans-Canada Highway. Over 600 acres consist of native grassland with an additional 300 acres comprised of a mix of native trees and shrubs along Ross Creek, tame grasses and ephemeral wetlands. It provides excellent habitat for pronghorn, pheasants, sharp-tailed grouse and northern leopard frogs.
TOTAL		2502.40	

Conservation Reports

The following Conservation Reports were completed and published in the 2012/13 fiscal year and are available on our website at ab-conservation.com, under publications.

Fisheries

Blackburn, J., B. Hurkett, T. Furukawa, and M. Rodtka. 2012. Baseline inventory of sport fish in the Edson River, Alberta, 2011. Data Report, D-2012-009, produced by the Alberta Conservation Association, Lethbridge, Alberta, Canada. 26 pp + App.

Buskas, M., W. Patterson, and T. Furukawa. 2013. Summer sport fishery and the special harvest license for walleye at Josegun and Smoke lakes, Alberta, 2012. Data Report, D-2013-003, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 14 pp + App.

Fitzsimmons, K., W. Patterson, and C. Rasmussen. 2013. Camera-based creel surveys of Beaver, Fiesta, and Ironside lakes, Alberta, 2012. Data Report, D-2013-004, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 10 pp + App.

Johns, T. 2013. Abundance and population structure of walleye in Milk River Ridge and Forty Mile Coulee reservoirs, 2012. Data Report, D-2013-001, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 16 pp + App.

Wildlife

Ranger, M., and K. Zimmer, Editors. 2013. Delegated big game surveys, 2011/2012 survey season. Data Report, D-2013-005, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 38 pp.

Specific section:

Seward, B., M. Grue, K. Morton, and E. Hoffman. 2013. Pronghorn antelope. Pages 7–10. In: M. Ranger and K. Zimmer (Editors). Delegated big game surveys, 2011/2012 survey season. Data Report, D-2013-005, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada.

Webb, S., D. Manzer, R. Anderson, and M. Jokinen. 2013. Wolverine harvest summary from registered traplines in Alberta, 1985–2011. Technical Report, T-2013-001, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada. 37 pp + App.

Wright, K.D. 2013. Hay-Zama lakes waterfowl staging and bald eagle nesting monitoring program, 2012. Data Report, D-2013-002, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 20 pp + App.

Report A Poacher and Compensation Programs

MY MEAT'S LEGAL.
Take a stand against poaching.

Report A Poacher

There are more than 200,000 acres of hunting, fishing and hiking territory on ACA's Conservation Sites and millions more on private and Crown land (in some cases) available for outdoor recreation. With such a vast expanse to patrol, Alberta Fish and Wildlife enforcement officers rely on the eyes and ears of the community to report suspected illegal activity through the Report A Poacher (RAP) program.

RAP is a community-based program that asks Albertans—not just hunters and anglers—to protect our wildlife, fish and natural habitats. With dozens of poaching infractions unsolved each year, every piece of information can help lead to an arrest and stop the poaching of our precious wildlife. RAP provides a toll-free phone number (1-800-642-3800) for people to report suspected illegal activity 24 hours a day, seven days a week.

Take a Stand Against Poaching

My Meat's Legal, an anti-poaching movement, was created and launched by ACA in October. Its bold message, followed by the statement, "Take a Stand Against Poaching," invites Albertans to say we don't tolerate poachers or poaching in our backyard.

2012/13 Overview

- 9,573 total calls from the public to the RAP toll-free phone number
- 1,586 calls related to suspected illegal activity
- 306 offenders charged with poaching
- $48,300 in rewards paid out to individuals whose call and information led to an arrest or fines
- Attended numerous trade shows and events throughout Alberta with the RAP trailer, distributing branded promotional items in order to educate and raise awareness about poaching and ethical hunting and fishing practices
- Increased RAP promotion through social media, television, radio and print
- Updated a variety of promotional items

RAP is jointly delivered by ACA and Alberta Justice and Solicitor General. A Memorandum of Understanding defines the terms of the relationship between our organizations. ACA is responsible for promotional and educational activities to maintain public awareness and understanding of poaching and the RAP program, as well as the administration of program funds. Alberta Justice and Solicitor General retains sole responsibility for liaising with informants, investigating reports and any enforcement actions.

REPORT A POACHER
www.reportapoacher.com
1-800-642-3800

Compensation Programs

ACA takes pride in fostering good working relationships with landowners. For producers whose livestock may have been killed or damaged as a result of predators (eagles, cougars, bears and wolves) or hunter activities, relief is provided through the Wildlife Predator Compensation and Shot Livestock Compensation programs. Like Report A Poacher, we are responsible for program promotion and compensation fund management, while ESRD is responsible for incident investigations and determination of informant payouts.

Wildlife Predator	Claims	Compensation
Eagle	3	$1,156.86
Cougar	14	$7,677.89
Black Bear	10	$11,712.41
Grizzly Bear	17	$18,981.93
Wolf	74	$83,292.85
Unknown Predator	4	$2,977.46
TOTAL	122	$125,799.40

Shot Livestock	12	$15,000.19

Our Granting Programs

Grant Eligible Conservation Fund

Alberta's hunters and anglers contribute directly to conservation through levies on their hunting and fishing licenses. A portion comes to ACA, and one of the many things we do is support community and research conservation efforts via our Grant Eligible Conservation Fund (GECF). Grants support a variety of projects each year, which benefit our wildlife and fish populations, as well as the habitat they depend on. The fund is administered in two parts:

Part A: Conservation Support and Enhancement

Funds conservation activities in Alberta by individuals, organizations, and communities that contribute to: healthy fish and wildlife populations, healthy environments for fish and wildlife, and the understanding, appreciation and use of those environments.

Part B: Research

Funds high-quality research projects on wildlife, fish and habitat, which inform the effective management of wildlife and fish populations and their habitats in Alberta.

2012/13 Overview

Part A: Conservation Support and Enhancement

- Received 67 applications requesting just over $1.3 million
- Funded 42 projects for a total of $469,526

Part B: Research

- Received 34 applications requesting just under $844,000
- Funded 18 research projects for a total of $329,899

GECF Part A: Conservation Support and Enhancement

Small Grants ($3,000 and under)

Alberta Fish & Game Association, Weed management, $3,000

Camrose Wildlife Stewardship Society, Camrose purple martin festival, $3,000

Cows & Fish - Alberta Riparian Habitat Management Society, Southern Alberta Grazing School for Women - bringing habitat and grazing stewardship to livestock producers, $3,000

Crowsnest Pass Quad Squad Association, Salamander Creek trail realignment, $3,000

Dunvegan Fish & Game Association, Bat houses, $2,000

Edmonton and Area Land Trust, Nestbox installation in Important Bird Area with local youth, $1,000

Edmonton Nature Club, 2012 Snow Goose Chase, $1,000

Ellis Bird Farm Ltd., Ellis Bird Farm video project, $1,500

Friends of Fish Creek Provincial Park Society, Amphibian Monitoring Program and malformation inquiry in Fish Creek Provincial Park and watershed public awareness campaign, $3,000

Lone Pine Farming Co., Habitat enhancement project #2 (bluebird boxes), $600

Lone Pine Farming Co., Habitat restoration project, $800

Nose Creek Watershed Partnership/ Trout Unlimited Canada, Nose Creek rehabilitation project, $3,000

Society of Grassland Naturalists - Medicine Hat Interpretive Program, Bats are welcome here, $3,000

Trout Unlimited Canada, Stewardship license/Brook trout suppression project, $1,000

University of Alberta, Management of earthworm invasions in Alberta, $1,500

Weaselhead/Glenmore Park Preservation Society, Weaselhead Invasive Plant Program, $3,000

GECF Part A: Conservation Support and Enhancement

Large Grants (over $3,000)

Agroforestry & Woodlot Extension Society, Raven/Medicine watersheds reforestation project, $15,000

Alberta Fish & Game Association, Operation Grassland Community: program evaluation and stakeholder collaboration toward sustainable land management solutions for wildlife in Prairie Alberta, $36,700

Alberta Fish & Game Association, Pronghorn antelope migration corridor enhancement, $42,000

Alberta Innovates - Technology Futures, Citizen stewardship in the Beaver Hills moraine, Alberta, $5,000

Ann & Sandy Cross Conservation Area, Wetlands rehabilitation and reintroduction of beavers to the ASCCA, $12,500

Beaverhill Bird Observatory, Beaverhill Lake stewardship, monitoring and public engagement, $15,250

Calgary Bird Banding Society, Cypress Hills migratory and breeding landbird monitoring, $15,000

Castle-Crown Wilderness Coalition, Inventory mapping and removal of invasive species in the Castle, $20,000

Cows & Fish - Alberta Riparian Habitat Management Society, Westslope cutthroat trout riparian habitat improvement action plans, $18,000

Crowsnest Conservation Society, Maintaining and restoring Crowsnest River riparian areas, $18,000

Delta Waterfowl Foundation, ALUS demonstration projects in the County of Vermilion River and Parkland County, $20,000

Elbow River Watershed Partnership (ERWP), Riparian health inventories in the Upper Elbow watershed, $8,000

Friends of University of Alberta Devonian Botanic Gardens, The ACA Learning Dock: Outdoor Education and Wetland Ecology Youth Program, $21,000

Lac La Biche County, Lac La Biche wetland inventory and classification plan, $8,000

Lesser Slave Lake Bird Observatory Society, Avian monitoring and stewardship at Lesser Slave Lake, $26,100

Miistakis Institute for the Rockies, Barriers and fish passage: aquatic connectivity along Highway 3, $13,000

Mountain View County, Riparian area management improvements, $21,000

Nature Alberta, Citizen science opportunities, $9,000

Nature Conservancy of Canada - Alberta region, Fence markers for species survival in southern Alberta, $5,000

North Peace Applied Research Association (NPARA), Riparian aerial video assessment of the Whitemud River, $6,000

Northern Alberta Institute for Technology (NAIT), Sturgeon River watershed habitat enhancement study, $26,576

Northern Lights Fly Tyers/Trout Unlimited Edmonton, Conserving and restoring Arctic grayling in the Upper Pembina River Watershed - database development, $10,000

Partners in Habitat Development/ Eastern Irrigation District, Partners in Habitat Development, $10,000

Red Deer County, Off the Creek Program 2012, $30,000

Western Sky Land Trust Society, The Bow and Beyond riparian health project, $10,000

Willmore Wilderness Foundation, Willmore Wilderness Park Stewardship Initiative: increasing hunting and angling access, $15,000

GECF Part B: Research

Canadian Wildlife Federation/ University of Regina, Using resource selection function models to inform conservation planning in Alberta's Special Areas, $22,700

Laval University, Population demography of mountain goats in Alberta, $14,200

University of Alberta, Eco-evolutionary dynamics of phenology in resident mammals, $19,574.50

University of Alberta, Edmonton urban coyote project, $15 854

University of Alberta, Estimating deer contact rates to design a long-term experiment for reducing CWD prevalence in Alberta, $33,000

University of Alberta, Evaluating the efficacy of setback distances as a tool for understanding critical habitat for ferruginous hawks in Alberta, $19,800

University of Alberta, Human access management in central-western Alberta: implications for movement and behaviour of grizzly bears (*Ursus arctos*), $33,050

University of Alberta, Identifying offset opportunities in Alberta: using Canada warblers to protect passerine diversity in the boreal forest, $16,500

University of Alberta, Long-term studies and elk calf study at Ya Ha Tinda, $25,500

University of Alberta, Native plant reproductive strategies and biochar additions affect urban reclamation success in terms of ecosystem function and services, $17,000

University of Alberta, Regeneration of the endangered whitebark pine in the northern Rocky Mountains of Alberta, $19,250

University of Alberta, Using wetland-dependent wildlife to monitor landscape change, $5,270.86

University of Calgary, The threespine stickleback in Alberta; a candidate for eradication or protection?, $9,500

University of Lethbridge, Examining resiliency of bull trout populations to brook trout invasiveness, $8,000

University of Saskatchewan, Identifying risks, impacts, origins and movement patterns of infectious pathogens in blue-winged teal (*Anas discors*) in the Canadian prairies, $20,500

University of Sherbrooke, Experimental management of bighorn sheep, $9,900

Water Matters Society of Alberta, Determination of pollutant export coefficients from different landbase and landuse types to Alberta rivers, $13,000

Wildlife Conservation Society Canada, Identifying habitat requirements for bats in winter, $27,300

Hunter, Trapper and Angler Retention, Recruitment and Education Grants

The Hunter, Trapper and Angler Retention, Recruitment and Education Grants support projects in three categories:

Mentorship – attracting new mentors, training mentors and providing mentors for new hunters, trappers and anglers

Education – in schools and for the general public about the link between conservation and hunters, trappers and anglers; this category also includes the education of new hunters, trappers and anglers

Awareness – making people aware of their opportunities to participate in hunting, trapping and angling

Since 2009, ACA has committed $500,000 per year from hunting and fishing levies to these grants, funding a wide range of projects throughout the province. In 2012/13, 25 grants were awarded to a range of groups including AHEIA, AFGA, ATA, PF and Nature Alberta. The projects ranged from youth pheasant hunts, to youth leadership seminars, to building bird houses and providing archery equipment for kids. We believe that these grants, along with the hard work of many of our member groups, are having a direct impact on the number of new hunters, trappers and anglers who are participating in these activities. As a result, we have seen more of the general public express a better appreciation of hunting, trapping and angling and the role they play in our society.

Grants in Biodiversity

The ACA Grants in Biodiversity program awarded 19 graduate student projects a total of $199,250. The projects included studies on invasive plant species in Alberta waterways, bears and railroad tracks, threats to salamanders, the effects of climate change and sport fish in mountain lakes, and an examination of how carnivore management policies are made. This year, all the awards, except one to the University of Saskatchewan, went to Alberta universities. Thirteen of the awards went to students working towards Masters degrees, with the remaining six awards going to PhD candidates.

The ACA Grants in Biodiversity program is funded by ACA and operated through the Alberta Cooperative Conservation Research Unit—a partnership between the University of Alberta, the University of Calgary and the University of Lethbridge.

The 19-year-old ACA Grants in Biodiversity program has now awarded over $4 million to 402 researchers. The research supported by ACA Grants in Biodiversity ultimately aims to conserve, protect and enhance Alberta's fish, wildlife and natural habitats.

For more information, visit: acabiodiversity.ca.

Taber Pheasant Festival

photo: ACA, Darren Dorge

2013 ACA Grants in Biodiversity Recipients

Recipient	Supervisor(s)	Institution	Project Title
Rachel Adams	Theresa Burg	University of Lethbridge	Landscape genetics of the black-capped chickadee (*Poecile atricapillus*) among southern Alberta's riparian areas
Matthew Atkinson-Adams	Cynthia Paszkowski	University of Alberta	Movement and habitat use of long-toed salamanders in Waterton Lakes National Park
Patrick Barks	Robert Laird	University of Lethbridge	Genetic diversity in rates of senescence in the aquatic plant *Lemna minor*
Kristin Bielefeld	Timothy Jardine	University of Saskatchewan	Food web structure and bioavailable mercury in beaver-influenced mountain streams
Brianna Burley	Dianne Draper and Ralph Cartar	University of Calgary	Bears and trains: examining bear behaviour and the railway using LocoCams
Stefano Catalano	Padraig Duignan	University of Calgary	Gastrointestinal parasite communities in grizzly (*Ursus arctos horribilis*) and black (*Ursus americanus*) bears from Alberta, and phylogenetic analysis of potentially pathogenic hookworms (Nematoda: Ancylostomatidae)
Stephanie Crowshoe	Cameron Goater	University of Lethbridge	Epidemiology of an emerging virus in tiger salamanders in southern Alberta
Matthew Gelderman	Ellen Macdonald	University of Alberta	Understanding pattern and process of whitebark pine regeneration — the basis for restoration of an endangered species
Vincent Hervet	Robert Laird	University of Lethbridge	Biodiversity and life history of natural enemies of prairie Noctuidae
Monica Higuera	Jocelyn Hall	University of Alberta	Pollination ecology in wild populations of Rocky Mountain beeweed (*Peritoma serrulata Pursh*) and clammyweed (*Polanisia uodecandra L.*) in southern Alberta
Sarah Johnson	Ralph Cartar	University of Calgary	Landscape and habitat impacts of logging on the reproductive performance of understory plants pollinated by bumble bees in foothills forest
Krista Larsen	Leland Jackson	University of Calgary	Molecular characterization of variant populations of *Didymosphenia geminata* in Alberta
Qi Liu	Heather Proctor and Rolf Vinebrooke	University of Alberta	Diversity and distribution patterns of non-biting midges (Diptera: Chironomidae) in Alberta
Charlie Loewen	Rolf Vinebrooke	University of Alberta	Assessing the net effects of climate warming and exotic sport fish on multi-trophic metacommunities in mountain lakes
Victoria Lukasik	Shelley Alexander	University of Calgary	Understanding Canadian carnivore management: perceptions, values, priorities, and limitations
Christianne McDonald	Felix Sperling	University of Alberta	*Polygonia spp.* in Alberta: a model for species delimitation
Petra McDougall	Kathreen Ruckstuhl	University of Calgary	Attending to attention: an ethological framework for investigating the mechanisms underlying attention following
Gregory Pec	J.C. Cahill	University of Alberta	Impact of mountain pine beetle disturbance on fungal community assembly
Kyle Welsh	Cynthia Paszkowski	University of Alberta	A study of western tiger salamander habitat use across multiple landscapes in Alberta
Bradley van Paridon	Cameron Goater and John Gilbeard	University of Lethbridge	Invasion pathway and population genetics of introduced lancet liver fluke in ungulates in Cypress Hills Park, Alberta

Financial Highlights

Wild Rose Conservation Site

Partners: ACA, AFGA, Environment Canada, NCC

photo: ACA, Brad Taylor

Discover Alberta's Wild Side
Annual Outdoor Adventure Guide

Map Grid **F3** 19

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KRP LLP
KINGSTON ROSS PASNAK

July 10, 2013
Edmonton, Alberta

INDEPENDENT AUDITOR'S REPORT

To the Members of Alberta Conservation Association

The accompanying summary consolidated financial statements, which comprise the summary consolidated statement of financial position as at March 31, 2013, and the summary results from consolidated statement of operations for the year then ended, are derived from the audited consolidated financial statements of the Alberta Conservation Association for the year ended March 31, 2013. We expressed a qualified audit opinion on those consolidated financial statements in our report dated July 10, 2013.

The summary consolidated financial statements do not contain all the disclosures required by accounting standards for not-for-profit organizations. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of Alberta Conservation Association.

Management's Responsibility for the Summarized Consolidated Financial Statements

Management is responsible for the preparation of a summary of the audited consolidated financial statements on the basis described in Note 1.

Auditor's Responsibility

Our responsibility is to express an opinion on the summary consolidated financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, "Engagements to Report on Summary Financial Statements."

Opinion

In our opinion, the summary consolidated financial statements derived from the audited consolidated financial statements of Alberta Conservation Association for the year ended March 31, 2013 are a fair summary of those consolidated financial statements, on the basis described in Note 1. However, the summary consolidated financial statements are subject to conditions equivalent to those of the audited consolidated financial statements of the Alberta Conservation Association for the year ended March 31, 2013, upon which we issued a qualified audit opinion.

In addition, in common with many not-for-profit organizations, the Association derives some of its revenue from partner contributions and donations, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, our verification of these revenues was limited to the amount recorded in the records of the Association and we were not able to determine whether any adjustments might be necessary to partner contributions, excess of revenue over expenses, current assets, deferred contributions and net assets.

Kingston Ross Pasnak LLP

Kingston Ross Pasnak LLP
Chartered Accountants

ALBERTA CONSERVATION ASSOCIATION

Summarized Consolidated Statement of Operations

Year Ended March 31, 2013

	2013	2012 *(Unaudited)*
REVENUE		
Fees and assessments	$ 11,080,741	$ 10,377,407
Partner contributions	1,619,374	1,282,576
Miscellaneous	271,690	259,099
Donations	240,270	194,634
Investment income	149,284	224,551
Film sales (recovery)	(16,559)	20,000
	13,344,800	12,358,267
EXPENDITURES		
Salaries and benefits	6,176,187	6,308,275
Grants	1,557,151	1,607,613
Contracted services	1,274,581	1,584,092
Rentals	706,633	613,711
Materials and supplies	529,049	556,644
Amortization	417,870	455,312
Landowner agreements	372,045	132,307
Travel	356,099	381,743
Advertising	326,047	713,659
Repairs and maintenance	202,968	224,224
Fuel and lubricants	201,504	227,130
Office	162,166	141,137
Telephone and communications	159,095	164,746
Bank charges and interest	149,709	116,828
Insurance	135,447	139,191
Freight and postage	71,692	80,094
Utilities	51,330	54,172
Training and membership	35,086	41,845
Fees, licenses and permits	30,842	40,934
Hosting and conferences	15,494	31,534
Bad debts	9,965	1,195
	12,940,960	13,616,386
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENDITURES FROM OPERATIONS	403,840	(1,258,119)
OTHER REVENUES (EXPENSES)		
Unrealized gain (loss) on investments	261,195	(119,527)
Gain on disposal of property, plant and equipment	12,206	6,787
Gain on sale of investments	11,570	58,683
	284,971	(54,057)
EXCESS (DEFICIENCY) OF REVENUE OVER EXPENDITURES	$ 688,811	$ (1,312,176)

ALBERTA CONSERVATION ASSOCIATION

Summarized Consolidated Statement of Financial Position

March 31, 2013

	2013	2012 (Unaudited)
ASSETS		
CURRENT		
Cash	$ 1,130,803	$ 1,102,945
Accounts receivable	936,772	415,246
Inventory	14,203	7,779
Goods and Services Tax recoverable	41,336	61,983
Prepaid expenses	393,570	430,195
	2,516,684	2,018,148
LONG TERM INVESTMENTS	4,307,142	3,898,952
PROPERTY, PLANT AND EQUIPMENT	19,676,616	16,973,701
FILM COLLECTION	3,023,870	2,974,949
	$ 29,524,312	$ 25,865,750
LIABILITIES AND NET ASSETS		
CURRENT		
Bank indebtedness	$ 2,557,476	$ 2,109,995
Accounts payable and accrued liabilities	1,585,996	1,883,039
Deferred contributions	2,741,846	1,826,807
Deposits	33,988	28,895
Demand non-revolving loan	1,367,542	1,431,713
	8,286,848	7,280,449
PROJECT CONTRIBUTIONS	1,474,293	1,474,293
	9,761,141	8,754,742
NET ASSETS		
Invested in property, plant and equipment	21,226,193	18,474,357
Internally restricted	474,846	757,037
Unrestricted	(1,937,868)	(2,120,386)
	19,763,171	17,111,008
	$ 29,524,312	$ 25,865,750

ON BEHALF OF THE BOARD

DIRECTOR

DIRECTOR

Financial Highlights

Summarized Financial Statements

In 2012/13, ACA received $11,080,742 in levy revenue from hunting and angling licenses, which is a $703,335 increase from the previous year. The increase in levy revenue is attributed to an increase in hunting license revenue of $480,218 and an increase in angling license revenue of $223,117.

Cumulatively, our Wildlife, Fisheries, Land Management and Communications programs had expenditures totaling $9,841,088 plus an additional $3,001,908 in land purchases and donations (for accounting purposes these funds are not recorded as a direct operational expenditure and are instead booked directly as assets), meaning that approximately 116% of levy value collected went back into conservation of Alberta's resources (expenses plus increase in habitat assets).

ACA received approximately $5.5 million in non-levy revenue (including $3,001,908 in land donations and funds for land purchase). These funds came from a variety of donors, including individuals, corporations, granting foundations, the federal government, and other conservation organizations.

Administrative costs were held to 14.4% of total operating revenue (including land purchase funds and donations).

Expenditures by Program

Often stakeholders want to determine what funds are being directed towards their particular passion. When examining the Expenditures by Program, please keep in mind that the numbers shown are somewhat arbitrary and do not necessarily represent all projects that may relate to a particular program area. For example, the Fisheries program had expenditures of approximately $2.075 million (approximately 19% of levy revenue), but this does not include our riparian fencing or fisheries access site maintenance projects; these have been budgeted within the Land Management program.

Revenue by Source

33% of ACA's total operating budget was generated from non-levy sources ($5,550,938). This represents an increase of approximately $1,360,053 in non-levy revenue over 2011/12. Land donations and purchases in 2012/13 resulted in an additional 4,098 acres (1,658 ha) conserved for future generations.

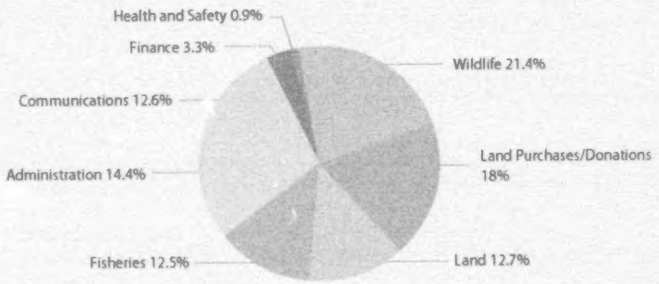
2012/13 Overview

- $11,080,742 received from levies on hunting and fishing licenses
- $5.5 million received in non-levy revenue
- $12,842,996 in value directly applied towards the conservation of Alberta's wildlife, fish and habitats
- Administration costs kept to 14.4% of revenue
- The pie charts provide a summary of the total operating budget in each program area. We encourage you to review the entire annual report to gain a greater understanding of the conservation projects undertaken within each program, and how they may relate to your particular passion. If you have any questions, please do not hesitate to contact our President & CEO, Todd Zimmerling.

Expenditures by Program

Wildlife	3,561,110
Land Programs	2,116,788
Land Purchases/ Donations	3,001,908
Fisheries	2,075,486
Administration	2,397,046
Communications	2,087,704
Finance	547,563
Health and Safety	155,263
TOTAL	**15,942,868**

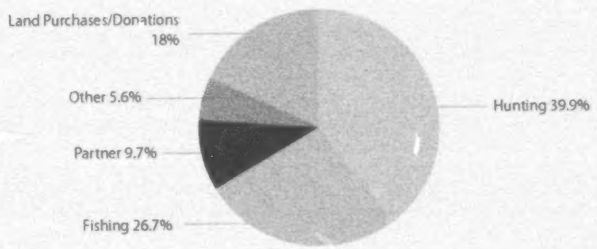
Note: percentage of revenue.



Revenue by Source

Land Purchases/ Donations	3,001,908
Hunting	6,642,848
Fishing	4,437,894
Partner	1,619,374
Other	929,656
TOTAL	**16,631,679**

*Not including unrealized gains on investments.



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